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ABSTRACT

An evaluation was conducted to measure the effectiveness of the K-12 Career Education Curriculum Model developed and implemented in the Northwest Tri-County Intermediate Unit (Edinboro, Pennsylvania). (See CE 017 643 for a detailed description of the project.) Career awareness, career exploration, and career preparation of pupils, K-12, were evaluated using standardized tests (relating to academic achievement in reading, mathematics, and career knowledge) and evaluator-designed tests (relating to progress toward project objectives). A sample was drawn from the seventeen school districts participating, and a basic control-group, pretest-posttest design was utilized for testing. Questionnaires were administered to teachers and administrators. (Many of the instruments are appended.) Minimal differences in academic achievement were reported between the experimental and control groups. All groups made gains in achievement during the year, but it was not possible to show that the use of the career units influenced these gains. In the area of career education, the experimental kindergarten and second-grade groups scored significantly higher than their control groups, but no significant differences were detected at the higher grade levels. The evaluators felt that in the limited amount of time during which the students were exposed to the project the benefits of career education could not totally be assessed by the testing program. Satisfactory progress was made toward diffusion of the curriculum project, and feedback from teachers and administrators was generally favorable. (BM)

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EVALUATION REPORT

A PROJECT TO DEMONSTRATE INCREMENTAL IMPROVEMENTS IN A K-12 CAREER EDUCATION PROGRAM THROUGH AN EXEMPLARY MODEL

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JULY 1976

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CE 017 642

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THE EVALUATION REPORT

A Project to Demonstrate Incremental Improvements in a K-12 Career Education Program Through an Exemplary Model

Grant Number: G007502398

For:

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INTRODUCTION

EVALUATION PLAN

OVERVIEW

The evaluation plan is basically one of measuring the effectiveness of the K-12 Career Education Curriculum Model. The main thrust of the evaluation will address itself to measuring the program's progression toward the stated objectives of the project. Inasmuch as learning activities and methodology in the project are crucial teacher and pupil components, an evaluation using standardized tests and expert opinion will be undertaken. This aspect of the evaluation will deal primarily with the specific question of the effectiveness of the career education program on career knowledge, reading skills, and mathematics skills.

Career awareness, career exploration, and career preparation of pupils at the preschool, primary, intermediate, junior high school, and senior high school will be evaluated. Standardized tests, relating to academic achievement in reading, mathematics, and career knowledge, as well as evaluator designed tests will be administered to assess progress toward project objectives.

Comparability of pupils in the project with pupils not participating in the project will be undertaken. A comparable control group will be identified at each grade level. To insure that the groups are equated when the project is initiated, pretesting will be conducted in the areas of career knowledge, reading, and mathematics achievement. Thus evidence toward stated objectives will be ascertained. This assumption is based on the premise that the objectives of the project are valid, inasmuch as they were accepted as the basis for funding the project.

The development of a positive self-concept is an important goal of the project. Insights into achievement of this objective will be determined through expert opinion, analysis of teacher attitude, and appropriateness of learning materials as indicated by student responses.

As a sample of the 17 school districts in Intermediate Unit #5, three districts were chosen, (Girard, Fairview, and Millcreek Township) to participate in the testing phase of the project. As a group these districts are considered to be representative of all districts in the Intermediate Unit.

FOCUS

The evaluation concerns itself with the following:

I. Progress toward the stated objectives of the project; particularly, the basic purpose of the project which is to demonstrate a Career Education Curriculum Model at a regional level, (the 17 school districts in the Northwest Tri-County Intermediate Unit).

   Specifically:

   A. Demonstrate a regional plan for the implementation of an open entry-exit (flexible) career development program encompassing career awareness, career exploration, and career preparation.

B. Expose each participating student to a range of career clusters within the context of his educational development and career development levels (awareness, exploration, and preparation).

C. Develop and implement a model computer resource career oriented curriculum for use at all grade levels, K-12.

D. Provide inservice training for all participating school personnel from the 17 school districts in the Northwest Tri-County Intermediate Unit Region.

E. Individualize the learning program for each participating student to meet his needs, interests, and abilities.

F. Provide a vehicle for coordinating life/space concepts, instructional career clusters themes.

G. Demonstrate the feasibility for storage and retrieval of career oriented curricula.

H. Provide a comprehensive career education curriculum that is transportable to regional, state, and national education agencies.

II. An evaluation of the methodology employed to meet these objectives and concepts.

III. Progress toward development of a positive self-concept of the students in the project.

PROGRESS TOWARD STATED OBJECTIVES

The Population

1. all students in project
2. all teachers

3. all guidance counselors
4. all principals and supervisors in project

The Design

A systems approach will be used to measure progress. Questionnaires and opinionaires will be administered to teachers and administrators. Additional evaluation instruments will include standardized achievement and career tests, picture tests, interviews, and observations. Items and statistical analyses will be made of the tests employed in the study as related to the project objectives. Quantitative data will be evaluated for the objectives.

PROGRESS TOWARD THE DEVELOPMENT OF CAREER AWARENESS, CAREER EXPLORATION, CAREER PREPARATION WITHIN THE PROJECT

The Population

1. Experimental Group - students in preschool, primary, intermediate, junior high, and senior high school levels who have been exposed to the project's units will represent the experimental group. Random and cluster sampling within the schools of the Intermediate Unit will be employed in the selection process of the experimental group.
2. Control Group - students in classes corresponding to those in the experimental group will be selected as a control group. These classes will be from the same school districts as the experimental group. Students in control classes will not have access to instruction involving any aspect of the experimental procedures of this project.

The Design

A basic control-group, pretest-posttest design, will be used in this study. The pretest will be utilized to determine if the experimental and the control groups are equal in the areas of career knowledge, reading skills, and mathematical skills. The posttest results will form the basis upon which judgments will be made as to the effectiveness of the experimental program. Schools are to be selected from the 17 school districts comprising Pennsylvania's Intermediate Unit #5 and are considered to be representative of the schools in this geographic area. The grade levels to be selected are representative of the preschool, primary, intermediate, junior high school, and senior high school levels.

The specific schools and grade levels to be selected for the testing phase of the project are as follows:

Experimental Group

Kindergarten	Asbury Elementary School	Millcreek Township
Second grade	Asbury Elementary School	Millcreek Township
Fourth grade	Asbury Elementary School	Millcreek Township
Ninth grade	Fairview Junior/Senior High School	Fairview
Tenth grade	Girard Senior High School	Girard

Control Group

Kindergarten	Tracy Elementary School	Millcreek Township
Second grade	Tracy Elementary School	Millcreek Township
Fourth grade	Tracy Elementary School	Millcreek Township
Ninth grade	Fairview Junior/Senior High School	Fairview
Tenth grade	Girard Senior High School	Girard

The specific rooms and teachers selected to participate in the testing phase of the project will be done on a random basis. Within the rooms selected the scores of 75 students in the experimental group and 75 students in the control group will be identified for the statistical analyses. These students will be grouped by grade level as follows:

	Experimental	Control
Kindergarten	15	15
Second grade	15	15
Fourth grade	15	15
Ninth grade	15	15
Tenth grade	15	15
TOTAL	75	75

Tests to be used at the representative grade levels is as follows:

Kindergarten

Pretest	Posttest
None	Gates MacGinitie Reading Test
	Individualized Career Test

Second grade

Pretest	Posttest
Iowa Test of Basic Skills (Reading and Mathematics) Level 8 Form 5	Individualized Career Test
	Iowa Test of Basic Skills (Reading and Mathematics) Level 8 Form 5

Fourth grade

Pretest	Posttest
Iowa Test of Basic Skills (Reading and Mathematics) Level 10 Form 5	Iowa Test of Basic Skills (Reading and Mathematics) Level 10 Form 5
Career Awareness Inventory	Career Awareness Inventory

Ninth grade

Pretest	Posttest
Stanford Achievement Test (Reading and Mathematics) Form B	Stanford Achievement Test (Reading and Mathematics) Form B
Career Awareness Inventory Form A-1	Career Maturity Inventory Form A-1

Tenth grade

Pretest	Posttest
STEP-SCAT Achievement Test (Reading and Mathematics) Series II	STEP-SCAT Achievement Test (Reading and Mathematics) Series II
Assessment of Career Development	Assessment of Career Development

Exact statistical procedures that will be used to analyze the results of the study will not be determined until the pretesting has been completed and scored. This approach is being followed to allow for flexibility that would be needed if the pretest results reveal that the students of the two groups are not initially equated in career knowledge, reading achievement and/or mathematics achievement. Final statistical analysis will be conducted in an acceptable format consistent with the Control Group, Pretest-Posttest Design incorporated in the study.

METHODOLOGY EMPLOYED TO MEET THE OBJECTIVES AND CONCEPTS

The Population

1. all teachers
2. all students
3. all guidance counselors
4. principals and supervisors

The Design

Questionnaires and opinionaires will be used to obtain information concerning the experimental methodology. Emphasis will be placed on ascertaining if the experimental methodology and activities are considered more effective for children than more traditional methods.

PROGRESS TOWARD DEVELOPMENT OF POSITIVE SELF-CONCEPT OF STUDENTS IN THE PROJECT

The Population

1. all teachers in the project
2. all students in the project

An estimate of the development of a positive self-concept of pupils will be made through observation, expert opinion of methodology employed, student opinion and reaction to the materials as observed by the evaluation team.

TREATMENT OF DATA

The results will be used to ascertain the following:

1. Progress in relation to the objectives of the project
2. Comparison of experimental and control group results as to their awareness to the concept questions

3. An assessment of the project's influence on the self-concept of students
4. The development of career awareness, career exploration, and career selection through the program

EVALUATION PROCEDURES

Part I. FIELD TESTING OF STUDENTS

Pretesting Procedures

In an effort to assess the impact of the K-12 Career Education Project on those students exposed to the available revised career education units, a pretest - posttest experimental design was employed. Experimental groups and control groups were identified by a random selection of schools and classrooms in the Intermediate Unit #5 region. Pretests designed to evaluate initial reading achievement, mathematics achievement, and career knowledge were administered to students in both groups to determine the equality of the students at the project's inception. The specific pretests administered at each grade level follow.

Grade Level	Mathematics and Reading Achievement	Career Education
Kindergarten	None	None
2	Iowa Test of Basic Skills Level 8 - Form 5	None
4	Iowa Test of Basic Skills Level 10 - Form 5	Career Awareness Inventory
9	Stanford Achievement Test Form B	Career Awareness Inventory
10	STEP-SCAT Achievement Test Series II	Assessment of Career Development

These tests were administered by the classroom teacher at the elementary level and by guidance counselors at the junior high and senior high levels. The results of this testing program are contained in the mid-year supplemental report that follows on pages 12 to 17.

A Mid-Year Supplemental Evaluation Report of the K-12 Career Education Model

Introduction

This aspect of the evaluation should be considered a progress report limited to four areas:

1. Revision of Career Education Units
2. In-service Programs
3. Units being utilized by teachers
4. Pretesting of Experimental - Control Groups

I. Revision of Units

Four units were revised at the high school level during a summer workshop in Saegertown High School in July, 1975. Twelve teachers participated in revising and further developing these units. Satisfactory progress has been made in this aspect of the project.

Presently, the staff administering the career education model has made plans to revise one elementary school, one junior high school, and one senior high school unit during the second semester, 1975-1976. These units will be revised under the supervision of the staff at the Intermediate Unit #5 educational facility.

II. In-Service Workshops

Workshops for teachers, counselors, and administrators were conducted on the following dates: September 18, 1975, September 21, 1975, October 13, 1975, October 21, 1975, and October 29, 1975. The workshop on September 18, 1975 concerned itself with the over-all regional plan to implement career education in local schools. Many of the individuals participating in this workshop planned to work within an experimental group formulating plans for the implementation of the region-wide model. A tentative analysis of the data obtained from the participants in the workshop showed that the in-service program was significant in achieving the objectives of the workshop.

The other workshops included representatives from participating schools throughout the Intermediate Unit #5 region. In general, progress toward achieving the objectives of in-service education throughout the seventeen (17) school districts is proceeding satisfactorily.

III. The Utilization of Units by Teachers

Teachers throughout the seventeen (17) school districts in Intermediate Unit #5 have been requesting pre-planning guides and units through the Instructional Materials Center. The evaluators have checked the log concerning the usage by elementary, junior, and senior high school teachers. From September through December, approximately 100 teachers have requested Career Education units. In the opinion of the evaluators, utilization of units has been sufficient.

IV. Pretesting of Experimental and Control Groups

The following pretests were administered to the experimental and control students.

Grade Level	Mathematics and Reading Achievement	Career Education
Kindergarten	None	None
2	Iowa Test of Basic Skills Level 8 - Form 5	None
4	Iowa Test of Basic Skills Level 10 - Form 5	Career Awareness Inventory
9	Stanford Achievement Test Form B	Career Awareness Inventory
10	STEP-SCAT Achievement Test Series II	Assessment of Career Development

Tables 1-4 contain mean scores of the experimental group and the control group by grade level in reading achievement and mathematics achievement. For grade levels 4-10 the tables also contain the mean scores obtained by the experimental and control groups on tests of career knowledge.

TABLE 1

Mean Pretest Scores - Second Grade Level

	Reading	Mathematics
Experimental	2.65	2.39
Control	2.67	2.16

Table 1 contains the mean reading and mathematics scores of both the experimental and control students. These scores were obtained from the Iowa Test of Basic Skills; Form 5; Level 8. The experimental class is located in Asbury Elementary School and the control class in Tracy Elementary School. Both schools are in the Millcreek Township School System which is located in Northwestern Pennsylvania.

TABLE 2

Mean Pretest Scores - Fourth Grade Level

	Reading	Mathematics	Career Knowledge
Experimental	4.88	4.99	83.53
Control	4.76	4.04	74.40

Table 2 illustrates the mean scores for reading, mathematics, and career knowledge at the fourth grade level for both the experimental and control students. The reading and mathematics scores were derived from the Iowa Test of Basic Skills; Form 5; Level 10. Career knowledge scores were obtained from the Career Awareness Inventory. The experimental and control classes are respectively located in Asbury and Tracy Elementary Schools in Millcreek Township.

TABLE 3

Mean Pretest Scores - Ninth Grade Level

	Reading	Mathematics	Career Knowledge
Experimental	8.23	9.23	108.4
Control	8.6	9.31	102.7

Table 3 contains the mean reading, mathematics, and career scores for the experimental and control groups at the ninth grade level. Students from the groups are located at Fairview Junior High School, Fairview, Pennsylvania. All students were administered the Stanford Achievement Test from which scores for reading and mathematics achievement were derived. The Career Awareness Inventory was administered to estimate the extent of career knowledge for both groups.

TABLE 4

Mean Pretest Scores - Tenth Grade Level

	Reading	Mathematics	Career Knowledge		
			Occupation Knowledge	Occupation Preparation Requirements	Career Planning
			LA	1A2	111A
Experimental	437.2	440.1	34.60	11.00	24.13
Control	445.2	447.7	35.07	10.80	26.13

Table 4 is composed of the tenth grade results for the experimental and control classes. Reading and mathematics scores were derived from the STEP-SCAT Test. The career scores were obtained from three subtests of the Assessment of Career Development Test. These subtests were concerned with Occupational Knowledge (1A); Occupational Preparation Requirements (1A2); and Career Planning Knowledge (111A). The sample at this level is composed of students from Girard High School, Girard, Pennsylvania.

Presently all of the experimental classes have completed at least one of the career units designated for their grade levels. All are proceeding to implement additional units as the school year continues.

Table 5 contains the results of a series of t tests that were employed to determine if differences between the experimental and control group were significant. These t tests were used to compare the group means of the experimental and control students in each of the areas of reading achievement, mathematics achievement, and career knowledge.

TABLE 5

t Test Values Comparing Pretest Scores in Reading, Mathematics, and Career Knowledge

	Content Areas		
Grade Level	Reading	Mathematics	Career Knowledge
2	.153	1.19	---
4	.326	2.36*	2.30*
9	.619	.137	1.78
10	1.45	1.54	.206

Degrees of Freedom = 28

*Significant: .05 level of confidence

The statistics in Table 5 show that the experimental and control groups do not differ significantly except at the fourth grade level. The significant differences between the experimental and control groups exist in the areas of mathematics achievement and career knowledge. Since the final evaluation will be based upon gain scores, these differences are inconsequential.

Revision & Development of Career Units

A major thrust of the project was the revision and development of career education units from kindergarten through grade twelve. Satisfactory progress has been noted toward the achievement of this objective. Immediately upon being funded revision & development of units was undertaken.

During the summer of 1975 the initial revision of four senior high school units began. From July 7, 1975 through August 15, 1975, 12 senior high school teachers began to revise the following career education units:

Basic Operations
Household Science
Talk
The American Election System

The revision of these units was completed during the period of June 14, 1976 through June 30, 1976.

At the junior high level work was begun during the spring of 1976. A unit titled, Communication Occupations, was initially developed by 10 junior high school teachers. This unit was completed during the period of June 14, 1976 through June 30, 1976.

During the spring of 1976, 16 elementary teachers began the initial development of a career unit titled, Health Occupations. This unit was completed during the period of June 14, 1976 through June 30, 1976.

The evaluators of the project attended several of the work sessions when the units were being written. It is their opinion that the quality of work was outstanding and that the units produced will enable more efficient development of career education concepts in the classrooms of Intermediate Unit #5.

The development and revision of the six career education units involved a total of 72 teachers. These teachers represented all grade levels as well as 14 school district of the Intermediate Unit #5 geographic area. A summary of the teachers who participated in this developmental phase of the project can be found in Appendix M.

Posttesting Procedures

All posttesting was completed during the time period of May 15 - May 30, 1976. Classroom teachers, guidance counselors, and the project evaluators were involved in the administration of these tests. The posttesting program follows:

Grade Level	Mathematics and Reading Achievement	Career Education
Kindergarten	Gates - MacGinitie Reading Test	Individualized Career Test Level K
2	Iowa Test of Basic Skills Level 8 Form 5	Individualized Career Test Level 2
4	Iowa Test of Basic Skills Level 10 Form 5	Career Awareness Inventory
9	Stanford Achievement Test Form B	Career Maturity Inventory Form 1-A
10	STEP-SCAT Achievement Test Series II	Assessment of Career Development

It should be noted that at the ninth grade level an adjustment was made in the area of testing concerned with career knowledge. In the pretesting situation the Career Awareness Inventory (Appendix D) was administered. The evaluators upon examination of the pretesting results judged that this test was not designed for students of this grade level; and, substituted in its place was the Career Maturity Inventory (Appendix H) which was deemed more appropriate for the ninth grade level.

It was further judged that due to the degree to which the experimental and control groups were equated, the original design to compare gain scores of the two groups was unnecessary. In place of gain scores a t test analysis of the posttest scores was instituted. The t test analysis was used to compare reading achievement, mathematics achievement, and career knowledge for each grade level except fourth. At the fourth grade level an analysis of covariance was used to compare mathematics achievement and career knowledge since the pretest results for these two areas indicated a significant difference in favor of the experimental group.

Tables 6 to 13 contain the results of the testing for the kindergarten group. At this level no pretests were given since all children were entering school for the first time.

TABLE 6

Kindergarten Posttest Mean Raw Scores for Reading Readiness and Career Knowledge

		Experimental	Control	D.F.	t value
Readiness	Mean	87.87	85.93	28	.4493
	Variance	51.84	225.92		
	Number	15	15		
Career Knowledge	Mean	16.80	13.73	28	2.5516
	Variance	11.74	9.92		
	Number	15	15		

Readiness of the kindergarten children at the conclusion of the program was assessed by the administration of the Gates - MacGinitie Readiness Test. Statistical analysis of the results of the readiness test show that although the experimental group mean was two points higher than the control group mean, no significant differences existed between the groups. The calculated t value of .449 did not exceed 2.048, the value at 28 degrees of freedom that was necessary to achieve significance at the .05 level of confidence.

In the areas of career awareness and career knowledge the evaluators administered an individualized career test (Appendix C) to all kindergarten students. The results in Table 6 show the experimental group achieved a mean of 16.8 compared to the control group mean of 13.73. A t test yielded a t value of 2.55 which exceeds the table value of 2.048 at 28 degrees of freedom. As a result, the differences between the mean scores of the experimental and control groups are considered significant at the .05 level of confidence in favor of the experimental group.

Table 7 presents the results of the second grade testing.

TABLE 7

Second Grade Posttest Results for Reading, Mathematics, and Career Knowledge

		Experimental	Control	D.F.	t value
	Mean	3.58	3.91	28	1.2314
Reading	Variance	.544	.555		
	Number	15	15		
	Mean	3.04	3.10	28	.2085
Mathematics	Variance	.401	.580		
	Number	15	15		
	Mean	17.67	11.87	28	5.8129
Career Knowledge	Variance	3.38	11.55		
	Number	15	15		

The Iowa Test of Basic Skills; Level 8; Form 5 was used to evaluate the reading and mathematics achievement of the students at this level. The posttest results show that the differences which existed were minimal when mean grade equivalent scores were compared. In both reading and mathematics calculated t values were less than the 2.048 value that was necessary for significance at the .05 level of confidence with 28 degrees of freedom.

The area of career knowledge was tested by an evaluator-administered, individualized career test (Appendix C). The results show the experimental group mean of 17.67 to be significantly higher than the control group mean of 11.87. The calculated t value of 5.81 exceeds the table value of 2.048 at 28 degrees of freedom at the .05 level of confidence.

The fourth grade results that follow required the use of an alternate statistical analysis. This was due to the fact that pretest results revealed that significant differences in favor of the experimental group existed between the two groups in mathematics and career knowledge. The pretest results in reading; however, did not indicate that any significant differences existed between the groups. As a result, an analysis of covariance was utilized in assessing the results in both mathematics and career knowledge while the t test approach of analysis was retained in the reading area.

Table 8 presents the posttest results for reading achievement.

TABLE 8

Fourth Grade Posttest Results in Reading

		Experimental	Control	D.F.	t value
	Mean	5.75	5.17	28	1.5913
Reading	Variance	.299	1.569		
	Number	15	15		

Though the experimental group attained a mean grade equivalent score of 5.75 on the Iowa Test of Basic Skills; Level 10; Form 5 as compared to the control group mean of 5.19, this difference was not great enough to produce a significant t value. The t test results produced a value of 1.59 which did not exceed the tabled value of 2.048 for 28 degrees of freedom at the .05 level of confidence.

As stated previously mathematics achievement and career knowledge were evaluated through analysis of covariance. This technique was used to compensate for initial differences that existed in the groups prior to the institution of the experimental procedures. The covariate or adjusting factor in this case was the pretest score in each of the areas being tested. Table 9 contains both the true means of the posttests in mathematics and career knowledge as well as the adjusted means for each area.

TABLE 9

True and Adjusted Mean Posttest Scores for Mathematics and Career Knowledge

	True		Adjusted	
	Experimental	Control	Experimental	Control
Mathematics	5.80	4.52	5.36	4.97
Career Knowledge	90.33	82.60	86.35	86.59

Table 10 contains the results of the analysis of covariance of mathematics achievement as determined by the Iowa Test of Basic Skills; Level 10; Form 5. As can be seen, an F value of 3.40 has been calculated. In order for the adjusted mean differences to be considered significant at the .05 level of confidence for 1 and 27 degrees of freedom the calculated F value should exceed 4.21.

TABLE 10

Fourth Grade Analysis of Covariance Results for Mathematics

	Source	S.S.	D.F.	M.S.	F
Mathematics	Treatments	.9239	1	.9239	3.4060
	Error	7.3454	27	.2720	
	Total	8.2693	28		

Table 11 presents the covariate analysis of career knowledge for the two groups as determined by the Career Awareness Inventory (Appendix D). The calculated F value of .0062 is less than one (1) which indicates the differences in the adjusted mean scores of the two groups is not significant.

TABLE 11

Fourth Grade Analysis of Covariance Results for Career Knowledge

	Source	S.S.	D.F.	M.S.	F
Career Knowledge	Treatments	.4717	1	.4717	.0062
	Error	2032.81	27	75.2891	
	Total	2033.28	28		

Results of the statistical analysis of ninth grade tests are summarized in Table 12. It should be noted that the pretest results indicated that there were no significant differences between the two groups in any of the areas being evaluated. The Stanford Achievement Test, Advanced Battery, Form B,(1973), was used to assess achievement in reading and mathematics. In the area of career knowledge the Career Maturity Inventory (Appendix H) was utilized. It should also be noted that the control group size has been reduced by two due to experimental mortality factors.

TABLE 12

Ninth Grade Posttest Results for Reading, Mathematics, and Career Knowledge

		Experimental	Control	D.F.	t value
Reading	Mean	9.35	8.87	26	.5636
	Variance	4.43	5.75		
	Number	15	13		
Mathematics	Mean	8.44	8.54	26	.0988
	Variance	2.62	10.63		
	Number	15	13		
Career Knowledge	Mean	33.47	32.46	26	.5699
	Variance	12.69	29.44		
	Number	15	13		

The results show that minimal grade equivalent differences exist in reading and mathematics and minimal raw score differences exist in the career knowledge area. These differences did not generate t values beyond what was necessary in order to achieve significance at the .05 level of confidence with 26 degrees of freedom.

At the tenth grade level reading and mathematics achievement was determined by the STEP-SCAT Achievement Test, Series II. Once again pretest results did not indicate significant differences between the experimental and control groups. Experimental mortality accounts for the loss of two (2) students each from the experimental and control groups. Table 13 contains the tenth grade posttest results for the areas of reading, mathematics, and career knowledge.

TABLE 13

Tenth Grade Posttest Results for Reading, Mathematics, and Career Knowledge

		Experimental	Control	D.F.	t value
Reading	Mean	441.538	450.154	24	1.5687
	Variance	147.500	244.667		
	Number	13	13		
Mathematics	Mean	442.654	451.423	24	1.7172
	Variance	172.917	166.083		
	Number	13	13		
Career Knowledge	Mean	65.231	74.231	24	1.9059
	Variance	166.231	123.193		
	Number	13	13		

The mean scores in each of the areas differ but not to the degree that the differences are considered significant. All of the t values are less than 2.06 for 24 degrees of freedom at the .05 level of confidence. Thus, no significant differences were detected at the tenth grade level at the conclusion of the experimental procedures.

Part II. Diffusion of the Project

Dissemination of information concerning career education in the K-12 Career Education Project to teachers within Intermediate Unit #5 was a major thrust of the proposal. Consultants in the project chose in-service education as a major vehicle for conveying the basic information concerning the implementation of the Project. Orientation workshops were conducted on the following dates:

September 18, 1975
October 13, 1975
October 21, 1975
October 29, 1975
January 26, 1976
March 3, 1976
March 19, 1976
March 19, 1976

The major objective of career education in-service programs was to acquaint teachers with the goals and operational procedures of the K-12 Career Education Project. The project director and the two project consultants planned the implementation of these programs. The expertise of classroom teachers who had previously used career education units in their classrooms was utilized in later workshops. The evaluators attended two in-service workshops where orientation to career education was presented by the Intermediate Unit #5 staff.

The workshop provided opportunities for school personnel from seventeen (17) school districts to participate in the orientation sessions. A total of 227 professional educators attended the sessions. These workshops were concerned with Career Education implementation into the classrooms. Teachers, administrators, and counselors representing all basic educational levels had presented to them an overview of career education. After this general orientation to career education, specific aspects of the project were presented.

The teachers, administrators, and counselors were generally receptive to the orientation. Each participant in the workshop was asked to complete a questionnaire designed by the evaluators. Of the 227 participants, 138 completed the questionnaire. A summary of the results of the questionnaire can be found in Table 14, "Summary Statistics for Orientation Workshops."

A copy of this questionnaire can be found in Appendix 1.

TABLE 14

Summary Statistics for Orientation Workshops

	Highly Significant	Moderately Significant	Not Significant	
Did the workshop increase your awareness regarding the overall regional plan to implement career education in local districts?	50	63	5	
Did you become more knowledgeable concerning methods by which a career education program might be implemented into your school?	38	89	11	
How beneficial do you rate the workshop?	41	87	10	

	Excellent	Good	Average	Fair	Poor
What is your overall rating of the workshop?	31	75	21	8	2

TABLE 14 (Continued)

What suggestions would you offer concerning improving the workshop?

Selected Comments:

Don't move too fast, have a chance to plan unit and go over it with someone from I.U. Less time on theory.

Give more personal accounts of implementation and view more printouts, how to implement them.

More time for small group interaction - grade level interaction.

Tour of local industries to see what's available in this area.

Get community resources, administrators, and teachers together.

Video tape demonstration of an in-operation program.

What do you view as strengths of the workshop?

Selected Comments:

Viewing of materials on hand.

Exchange of ideas with fellow teachers.

Staff was helpful and considerate.

Bringing to forefront importance of career education.

Rationale folders sent to us ahead of time.

Good to see those in charge, expressing other means of achieving career education other than through computerized units.

If you care to provide additional comments concerning the workshop and the regional career education plan, please do so below.

Selected Comments:

Bring materials to districts for in-service training.

More time to view all available materials.

TABLE 14 (Continued)

Selected Comments:

> What did the teacher receive that can be utilized in his room?
>
> Presentation by elementary teachers was good. Enthusiastic!
>
> AWAKE program and implementation process was ignored.
>
> If we are going to make career education more realistic to students, it must be made realistic to us.

After analysis of the information received on the questionnaires at the career education orientation workshop, the evaluators met with members of the career education staff and made suggestions concerning the restructuring, improvement, and refining of the workshop. These ideas were then incorporated in ensuing orientation workshops.

The evaluators feel strongly that the in-service programs were well planned and effective. They also feel that with the constant assessment built into the program, the diffusion of career education will continue to become more effective. Such programs are a necessity to help insure the implementation of career education into the curricula of the schools. Resources must continue to be directed toward informing teachers of the availability and value of career education; in particular, of the career units in the K-12 Career Education Project.

Part III. K-12 Career Education Developer Questionnaire

An analysis of the responses to the Developer Questionnaire indicated that teachers reacted favorably to all questions concerning the project, with the exception of question five. Questions one through twelve solicited responses on a five-point scale from "Strong Agreement" to "Strong Disagreement". The majority of the responses was in the category of "Strong Agreement" and "Mild Agreement". The one exception was question five which indicated a "Neutral" response. This response was natural inasmuch as the units were developed during the summer when children were not available.

While an analysis indicated that teachers reacted favorably, there were somewhat marked differences between elementary and secondary teachers in responding to question two, four, nine, ten, and twelve. In question two, the majority of elementary teachers indicated they were given ample opportunity to define the scope and focus of the unit. In response to question four, elementary teachers felt more positively that resources were available. Question nine indicated more elementary teachers than secondary teachers felt that their activities were significant and meaningful to the project. Responses to question ten showed fewer secondary teachers strongly agreed that the philosophy and concepts of career education were taken into consideration in the development of the resource unit. Question twelve showed more elementary teachers strongly agreed that the unit was broad and extensive enough to meet the needs and interests of individual students.

Question thirteen through seventeen were "Yes" - "No" questions and a majority of the developers indicated "Yes" to these questions. An analysis of the responses indicates a positive attitude toward the project objectives, classroom procedures, and the content of career education from kindergarten through the senior high school.

While the preponderance of the responses were "Yes" for questions thirteen through seventeen, there was a difference between elementary and secondary teachers' opinions. Elementary teachers responded "Yes" in greater percentages than did secondary teachers. The most marked difference was in question 15, which referred to altering classroom methodology. Fewer secondary teachers responded "Yes" to this question.

A statistical summary of the results of this questionnaire can be found in Table 15.

Written comments of the developers were generally favorable in nature. Many comments indicated that through experiences in the project teachers have utilized the methodology used in the project, are further aware of the individual needs of pupils, and recognize the desirability of developing the individuality of students. Multiple responses from teachers indicated that they were aware of the following: the importance of career education, the importance of working with students who are not college bound, the desirability of a more individualized approach to teaching, different approach in solving instructional problems, and curriculum construction. These responses, along with many others, indicate that progress is being made toward the stated objectives of the project.

All responses made by the developers to the questionnaire can be found in Appendix J.

TABLE 15

Summary - K-12 Career Education Developer Questionnaire

No.	Question		Strong Agreement	Mild Agreement	Neutral	Mild Disagreement	Strong Disagreement
1.	I was given sufficient information about the project (i.e., topic and format) prior to beginning my work on the units.	Elementary	8	11	0	2	0
		Secondary	12	17	5	7	1
		Total	20	28	5	9	1
2.	I was given ample opportunity to define the scope and focus of the Career Education Unit which I helped develop.	Elementary	15	3	3	0	0
		Secondary	12	19	9	5	1
		Total	27	22	12	5	1
3.	There was an atmosphere of mutual respect and cooperation between myself, the project staff, and consultants.	Elementary	19	1	0	0	0
		Secondary	33	11	1	1	0
		Total	52	12	1	1	0
4.	There were available, most of the human and material resources I felt necessary for developing the unit.	Elementary	10	8	2	0	1
		Secondary	10	15	10	9	2
		Total	20	23	12	9	3

TABLE 15 (Continued)

No.	Question		Strong Agreement	Mild Agreement	Neutral	Mild Disagreement	Strong Disagreement
5.	There was an opportunity to test ideas regarding the unit in real situations or obtain factual information concerning their worth or effectiveness.	Elementary	6	4	4	5	3
		Secondary	2	13	14	14	3
		Total	8	17	18	19	6
6.	Progress was continually assessed by all active participants throughout the program.	Elementary	4	13	3	0	1
		Secondary	8	30	8	3	0
		Total	12	43	11	3	1
7.	There was adequate coordination among the various groups working on different units.	Elementary	11	5	2	3	0
		Secondary	14	16	9	6	1
		Total	25	21	11	9	1
8.	There was adequate coordination among those working on a single unit within the development phase of the project.	Elementary	16	3	2	0	0
		Secondary	25	16	2	3	0
		Total	41	19	4	3	0

TABLE 15 (Continued)

No.	Question		Strong Agree-ment	Mild Agree-ment	Neutral	Mild Disagree-ment	Strong Disagree-ment
9.	I felt my activities were significant and meaningful to the project.	Elementary	16	5	0	0	0
		Secondary	15	25	4	0	0
		Total	31	30	4	0	0
10.	The philosophy and concepts of career education were taken into consideration in the development of the resource unit.	Elementary	17	4	0	0	0
		Secondary	24	17	3	1	0
		Total	41	21	3	1	0
11.	The make-up of our group was sufficiently diverse to provide an adequate cross-section of opinion and expertise.	Elementary	15	6	0	0	0
		Secondary	27	25	1	3	0
		Total	42	31	1	3	0
12.	The unit was broad and extensive enough to meet the needs and interests of individual students.	Elementary	14	5	1	1	0
		Secondary	15	24	5	2	0
		Total	29	29	6	3	0

TABLE 15 (Continued)

No.	Question		Yes	No
13.	As a result of your experiences in this project do you possess different ideas, persuasions, and viewpoints about career education? If so, please list some examples.	Elementary	20	1
		Secondary	37	8
		Total	57	9
14.	As a result of your experiences in this project are you more aware of problems and potentials of career education as this relates specifically to your own school and classroom? If so, what kind of problems?	Elementary	21	0
		Secondary	40	7
		Total	61	7
15.	As a result of this experience do you anticipate your classroom methodology will be altered? If so, please describe.	Elementary	19	1
		Secondary	29	16
		Total	48	17
16.	As a result of this experience are you more willing to work with others to solve other instructional problems? If so, what type of instructional problems?	Elementary	16	3
		Secondary	35	10
		Total	51	13
17.	In your opinion, in building the resource unit, was concern given for individual pupil differences and growth? To what degree?	Elementary	19	2
		Secondary	42	2
		Total	61	4

Part IV. K-12 Career Education User Questionnaire

Responses to the User Questionnaire indicated that in general teachers reacted favorably to the materials, methodology, and the content of the units. There was a consensus of opinion on questions one through eleven which were "Yes" - "No" in nature. Favorable responses were revealed in all questions one through eleven.

The written comments of users were in general favorable; however, teachers indicated that they needed more specific help in using the guides, implementing specific lessons, and obtaining instructional resources.

Questions twelve through fifteen were open-ended in nature. An analysis of the responses to these questions revealed that teachers who used the units were interested in career education for their students and in improving the education in their classes. In the judgment of evaluators, these criticisms are considered normal and natural.

Selected comments that were typical of the responses to questions can be found in Table 16, "Summary Statistics and Selected Comments for User Questionnaire."

All responses made by users to the questionnaire can be found in Appendix K.

TABLE 16

Summary Statistics and Selected Comments for User Questionnaire

No.	Question		Yes	No
1.	In your opinion was this unit oriented toward career awareness, exploration or preparation for your students?	Elementary	11	0
		Secondary	10	1
		Total	21	1
2.	Were you given sufficient information and guidance prior to using and during the use of the units? If no, please explain.	Elementary	8	2
		Secondary	8	2
		Total	16	4
3.	Would you consider a laboratory, demonstration class, or other in-service training of value in helping you to learn how to implement units? Please explain.	Elementary	9	2
		Secondary	9	2
		Total	18	4
4.	Do you possess different ideas, persuasions, and viewpoints about career education and its processes since your experiment with the guide and unit? Please explain.	Elementary	9	3
		Secondary	7	2
		Total	16	5
5.	Are you more aware of problems in education and career education specifically in your own school and classroom as a result of using the guide? If yes, please explain.	Elementary	6	4
		Secondary	6	3
		Total	12	7
6.	Did you select and request individual student print-outs? If so, how many? If not, why?	Elementary	5	4
		Secondary	7	4
		Total	12	8
7.	In your print-out for individual students, were the number of suggestions relating to content, activities, materials, and measuring devices sufficient? If no, please explain.	Elementary	6	1
		Secondary	9	0
		Total	15	1

TABLE 16 (Continued)

No.	Question		Yes	No
8.	Did you experience difficulty in obtaining the materials listed in the unit? If yes, please explain.	Elementary	3	7
		Secondary	2	6
		Total	5	13
9.	If you did not use individual students print-outs, did you find the pre-planning guide helpful? If so, in what way?	Elementary	4	0
		Secondary	5	1
		Total	9	1
10.	Are you planning to use this career unit again?	Elementary	11	0
		Secondary	7	3
		Total	18	3
11.	Would you like to use other career units designed within this format?	Elementary	9	2
		Secondary	6	1
		Total	15	3

Selected comments typical of responses to the following questions:

12. In your opinion, what are the strong points of these units as they relate to career education?

Selected Comments:

Many of the activities make learning more fun and interesting for the students. It is much easier for the teacher to teach career concepts when he has available to him these types of opportunities. These activities not only stress career awareness, but also emphasize concepts in every subject area.

I think the children obtain the feeling of having a job in broad-casting or any other job. I like the real application.

To give individual instruction; to give and help direct independent work.

Awareness! My job was to make the student aware of the different jobs in the career clusters. These units gave me more than enough information and activities to make career education more enjoyable.

TABLE 16 (Continued)

Selected Comments:

> I am impressed with the individualized print-outs which I have seen. Although I did not use them this year, I plan to next year.

13. In your opinion, what aspects of this career unit should be altered or improved?

Selected Comments:

> I feel that in the lower primary grades it is impractical to give students individual print-outs. Many of them have difficulty reading some of the information and find it too confusing. Students have difficulty choosing an activity when they have so many to choose from. I feel it is impossible for a teacher to have available to his students all the resources, materials, supplies, and paraphenalia that all the activities require at one given time.
>
> Include in the pre-planning unit a list of products obtained from the sea that they should become familiar with. More content information could be included.
>
> More visual aids should be available; more on readability level of students.
>
> I would like to see more specific examples of activities. The listed activities were good, but general.
>
> Do away with some of the resources which are out-of-date.

14. How do you feel the children reacted to the materials and methodology of this unit? Describe briefly.

Selected Comments:

> The children enjoyed most of the activities because they involved seeing and doing things of interest. They especially enjoyed field trips and group activities.
>
> Basically they worked well; however, some students because of trouble working independently, and trouble finding activities in their units.
>
> More enthusiasm than for a regular unit of work.

TABLE 16 (Continued)

Selected Comments:

> Computer print-out itself is a motivator. The concept that student interests and needs are being directly considered positively affects students' reaction and attitude.

15. How might you incorporate career education concepts into your classroom in the future in addition to the computer unit approach?

Selected Comments:

> In kindergarten, these units could become a part of the language experience program. Further collections of materials, such as hats, badges, and uniforms would be necessary.
>
> More awareness leads to more teacher comments on career education in the course of a day.
>
> I will probably try a computer unit again, but I also use everyday life-experiences, characters in reading books, introduction of school workers, etc. Frankly, I think we use every chance we get to make children more aware of the world and its workers but we just don't take the time to say, "Ah, this is my lesson on careers for the day."
>
> You might use a type of program only one day a week to go along with the subject matter being covered.
>
> Have more resource persons to speak to my class about careers.

Part V. K-12 Career Education Administrator Questionnaire

An analysis of the responses from twenty administrators indicated that in general they have been adequately informed as to the format and progress of the K-12 Career Education Project in their respective schools. However, a minority of the administrators indicated that they desired more information concerning the project. Respondents indicated that strengths of the program were in the individualization of instruction, the easy accessibility of the information via the computer, and that the project was a bold attempt to provide career education for a wide range of students. They also felt that the methodology in the project compared favorably with other teaching techniques used in their schools.

Administrators recommended that improved dissemination of the units, workshops, greater student involvement on actual job experiences, and greater involvement of administrative staffs of the various schools would strengthen the project. They also felt that students would be more interested in the project if more of the units were revised to reflect present day student interests. Administrators felt teachers need additional concrete materials and resources locally as well as more assistance in planning and implementing activities in the classroom.

A listing of typical responses to this questionnaire can be found in Table 17, "Summary Comments for Administrator Questionnaire."

All administrator responses to the K-12 Career Education Questionnaire can be found in Appendix L.

TABLE 17

Summary Comments for Administrator Questionnaire

No. Question

1. In your opinion, what is the status of Career Education in your school district?

   Selected Comments:

   Our district has developed a plan for next fall that meets the needs and desires of the teacher.

   It is presently being used by several teachers for both remedial and supplemental work in their classrooms.

   As such, we do not have a Career Education Program. At present we have nothing happening on a large scale.

   The high school offers a career planning course to tenth graders and students involved in the work experience program.

   The amount of emphasis is dependent on the teacher and/or department. It seems to be a hit and miss approach with some doing much and others doing very little or nothing. A lack of interest on the part of many staff members has limited the program.

2. Do you feel that you and your staff have been adequately informed as to the format and progress of the Intermediate Unit #5 Career Education Project that is available to use in your schools?

   Selected Comments:

   Yes, informed, but not proficient in technique at this time.

   Yes, through our director.

   We have been informed as to the program of I.U. #5 and the staff has been very cooperative.

   Yes, at two different times I had an I.U. #5 person talk to the faculty at a scheduled meeting.

TABLE 17 (Continued)

No. Question

3. Do you feel that the Intermediate Unit's Career Education Program meets the needs of your school district's goals in career education?

   Selected Comments:

   For the present time, yes. As more teachers incorporate this in the curriculum more units will need to be added.

   Yes, as far as it goes. There are some gaps, particularly at the Junior High level. These resources serve as a springboard to further investigate, which is its primary purpose.

   No! You don't have a program for a school to use only resource units. Before these are of any use a lot of curriculum work must take place.

   As a teacher it meets my teacher goals in developing career oriented students.

   Still experimental!

4. In your opinion, what are the strong points of this Career Education Program?

   Selected Comments:

   The VAULT program helps the teacher to individualize instruction and appeal to the individual interests of the class.

   Definite resource materials - relative to the student's interests - progression at own speed; termination of project as the student if no longer interested in any particular aspect.

   The emphasis of relating careers to all subject areas is good.

   Ready access to information concerning to all careers for young men and women.

   High interest on their level.

   I like the USOE clusters approach. It defines specific jobs and places them in handy compartments.

TABLE 17 (Continued)

No. Question

5. In your opinion, what areas of the Career Education Project should be altered or improved to meet your needs?

Selected Comments:

More units developed.

Your program is not understood by most teachers.

Because of some really good E.Q.A. scores on career education, we can't think of any necessary alterations.

Perhaps less emphasis upon formal classes in career education with more emphasis on mini-courses in careers which might become a part of regular class activities.

More contact with I.U.#5 Career Education Project personnel would be desirable.

Money should be earmarked for classroom projects such as films, kits, and field trips to enlarge upon the career.

6. How do you react to the methodology incorporated into the project? Is it a workable approach to use in the classroom?

Selected Comments:

Perhaps more teacher education in setting up goals is needed. We found that using only communications as a goal greatly limited the activities suggested.

Yes. It rests upon the teacher, however, to present it properly, and if the teacher feels that it is just a matter of handing out the forms, then it is all lost. The teacher should lead the interest parade.

This approach is definitely workable.

Concerned as to how much material is needed in our libraries.

Good methodology and can be learnable.

This approach is definitely workable; however, the initial selection of units needs to be presented almost individually to teachers.

SUMMARY OF EVALUATION

The results of field testing of students in the K-12 Career Education Project revealed a variety of results.

In the areas of reading and mathematics achievement minimal differences between the two groups was reported. It should be emphasized that the career units did not provide specific provisions toward teaching these subject areas in a direct fashion. Emphasis must also be directed to the fact that all groups made gains in achievement during the academic year but that it was not possible to show that through the use of the career units greater gains were made by the experimental group.

In the area of career education the experimental kindergarten and second grade groups scored significantly higher than their control groups. At the fourth, ninth, and tenth grade levels no significant differences between the groups could be detected. The evaluators were pleased that all students improved in the area of career knowledge within the duration of the project. They also felt that the significant gains made by the experimental kindergarten and second grade groups might be attributed to the fact that students were exposed to many more units than those at the remaining grade levels where significance was not achieved.

In summary the evaluators felt that in the limited amount of time during which the students were exposed to the project, the benefits of career education could not totally be assessed by the testing program.

Satisfactory progress has been made toward the objective of diffusion of the K-12 Career Education Project. In-service workshops have been well organized, professionally presented, and contained the fundamental ideas of career education. Administrators and teachers were generally receptive to the orientation. Feedback from administrators and teachers was incorporated in ensuing workshops within Intermediate Unit #5.

Teachers who worked as developers of units in the project reacted favorably to the questions asked in the developer questionnaire. The one exception concerned was the lack of opportunity to test learning activities in real situations. Written comments by the developers indicated that teachers felt that the scope and focus of the units reflected excellent learning opportunities for children. Differences between the reaction of elementary teachers and secondary teachers were found in resources being available in the respective schools.

User questionnaire responses indicated to the evaluators that, in general, teachers had a favorable reaction to the materials, methodology, and content of the units in the project. Teacher users felt that they needed more specific help in using the guides, implementing specific lessons, and in obtaining instructional resources.

Administrators responded favorably to the format and the refined methodology of the project. Respondents indicated that strengths of the program were in the individualization of instruction, the easy accessibility of the information via the computer, and that the project was a bold attempt to provide career education for a wide range of students. Administrators felt teachers need additional concrete materials and resources locally as well as more assistance in planning and implementing activities in the classroom.

STATISTICAL DATA: QUANTITATIVE ASPECTS OF K-12 CAREER EDUCATION PROGRAM

Quantity of Exposure of the Cluster Units Within Maturity Levels

A. Number of revised cluster units developed for each maturity level:

Number possible: 52
Number revised: 4
Number developed: 2

B. Number of students who had the cluster units available on their maturity level: 50,000

Quantity of Individualization

A. Average number of variables on profile sheet:

Student sheet: 35
Teacher sheet: 30

B. Number of teacher-pupil conferences to help individualize the student's selection and options within the unit: 843 minimum

C. Number of individual print-outs for students: 843

D. Number of teacher pre-planning print-outs requested: 260

E. Average number of objectives available for each student's selection per unit: 6.5

F. Average number of content items available for each student per objective within a unit: 20

G. Average number of instructional activities available for each student per objective within a unit: 20

H. Average number of instructional resources available for each student per objective within each unit: 35

I. Average number of measuring devices available for each student per objective within each unit: 20

Feasibility of Existing Computer Facilities

A. Computer use: One UNIVAR 32K Tape Drive and Disc Drive Combination

B. Total storage in K's: 32K

C. Storage available to project in K's: 32K tapes

D. Total number of available print-outs retrieved concerning the 4 revised, two newly-developed, cluster units: 843

Quantity of Career Instruction Units Taught in Experimental Class

A. Kindergarten

Title	No. Student Print-outs
Construction	22
Public Service	22
Personal Service	22
Communications	22
Marine Science	23
Hospitality	22

B. Second Grade

Title	No. Student Print-outs
Hospitality	88
Agri-Business	5
Construction	12
Health	5
Marine Science	6

B. Second Grade (continued)

Title	No. Student Print-outs
Public Services	3
Personal Services	3
Business and Office	3
Consumer Home	6
Manufacturing	3
Communications	3
Transportation	3

C. Fourth Grade

Title	No. Student Print-outs
Hospitality	29
Consumer Home	13

D. Ninth Grade

Title	No. Student Print-outs
Communications	24
Consumer Home	5
Transportation	11

E. Tenth Grade

Title	No. Student Print-outs
American Money	29
Unions	15

In compliance with the U.S. Office of Education requirement, information concerning the cultural background of the participants in the Project has been collected. It is presented in Table 18 on page 53.

Table 18

Summary of Cultural Background of Participants in K-12 Career Education Project

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202
CAREER EDUCATION PROGRAM
PARTICIPANT SUMMARY

NOTE Participants include those DIRECTLY served by the project or, in the case of most parents and persons in the business/labor industry community, who actively assist in project implementation. "Actively assist" includes efforts such as serving as resource persons, serving on Advisory Groups, providing work experience, etc.

FORM APPROVED
OMB NO. 51-R1187

NUMBER OF PARTICIPANTS (see NOTE above) WHO ARE	RACE/ETHNICITY (all Participants including Handicapped, Gifted and Talented, and Low Income)						OF THE TOTAL (column (6)) NUMBER WHO ARE			OF THE TOTAL (column (6)) NUMBER WHO ARE	
	AMERICAN INDIAN OR ALASKAN NATIVE (1)	ASIAN OR PACIFIC ISLANDER (2)	BLACK/ NEGRO (3)	CAUCASIAN/ WHITE (4)	HISPANIC (5)	TOTAL (sum of columns (1) through (5)) (6)	HANDI-CAPPED (7)	GIFTED AND TALENTED (8)	LOW INCOME (9)	MALE (10)	FEMALE (11)
STUDENTS											
ELEMENTARY (K-6)			2	838	1	841	16	9	83	400	441
MIDDLE/JUNIOR HIGH (7-9)				95		95			4	39	56
SENIOR HIGH (10-12)			3	220		223	1		70	138	85
2-YEAR COLLEGE											
4-YEAR COLLEGE											
ADULTS (non-matriculated)											
SUB-TOTAL			5	1,153	1	1,159	17	9	157	577	582
EDUCATIONAL PERSONNEL											
TEACHERS				260		260	▨	▨	▨	175	85
COUNSELORS				23		23	▨	▨	▨	14	9
ADMINISTRATORS				17		17	▨	▨	▨	17	0
MEMBERS OF THE BUSINESS/ LABOR/INDUSTRY COMMUNITY				225	1	226	▨	▨	▨	▨	▨
PARENTS				136		136	▨	▨	▨	▨	▨
OTHER (specify)							▨	▨	▨	▨	▨
TOTAL			5	1,814	2	1,821	▨	▨	▨	▨	▨

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CONCLUSIONS AND RECOMMENDATIONS

Conclusions

An analysis of the data presented in this report indicates that progress has been made toward all the objectives of the K-12 Career Education Project. Results of the opinionaires and questionnaires revealed that teacher responses, both by developers and users, were overwhelmingly positive in nature. Teachers and administrators felt that the program had particular strength in the variety of materials for instruction concerning career education, the importance of the concepts in the world of work, the consideration of individual needs of pupils, and the resources suggested for use in achieving the objectives of the project.

Administrators reacted favorably to both the format of the project and to the need of career education in our fast-changing world. They felt that career education relates the academic world to the world of work; therefore, it is imperative that it be incorporated in their respective schools.

Diffusion of the project through in-service workshops has progressed satisfactorily. The supervisors of the project have evaluated the orientation program on a continuing basis after input from teachers and administrators.

Specific recommendations for improvement of the project are listed below.

Recommendations

The evaluators make the following recommendations:

1. The project should be continued, refined and expanded. Inasmuch as education is a cumulative process, it is recommended that funding be provided on a basis that exceeds a yearly time increment. This is necessary to adequately and validly assess the full impact of this career education project in the areas of career knowledge as well as the influence on reading and mathematics achievement.
2. Increased number of teachers in the participating schools should be encouraged to use the units.
3. In-service training of teachers by supervisors of the project should be further refined to promote more effective utilization of the units including:
    a. Involvement of teachers who have successfully used the project in in-service training.
    b. There should be continual diffusion of the project through in-service workshops, follow-up, and implementation plans.
4. Continual up-dating of content and activities should be a major consideration. This should include:
    a. More learning activities related to present day student interests.
    b. Extraneous materials be deleted from the units on a regular basis.

c. Feedback information from teachers and guidance counselors should be incorporated in the continual revision of the units.

5. A summary of the essential content of each unit should be included with the teacher print-out. Essential information be used for instruction by all teachers, such as, suggested projects and activities that appeal to a great variety of students would be incorporated into such a synopsis.

6. Selected packets of instructional materials for the most widely used units should be available to facilitate instruction. It is suggested that these packets of materials might include filmstrips, pictures, bulletin board ideas, teaching aides, films, multi-media materials, etc. More emphasis be placed on providing educational resources rather than lists of resources.

7. Future and revised units should incorporate greater numbers of specific activities relating to the development of mathematics and reading achievement.

8. Evaluation techniques should be developed, and initiated within the units, rather than the listing of possible evaluation procedures.

9. Teachers should be encouraged to utilize career education concepts throughout the school year. Career concepts should be incorporated in all areas of the curriculum.

10. At levels of education where departmentalization of instruction takes place, students must receive career education concepts from more than just one teacher to be significantly effective.

Appendix A

Gates-MacGinitie Reading Tests
Reading Skills

The reading readiness skills possessed by kindergarten students in both the experimental and control groups at the conclusion of the experimental procedures was assessed by the Gates-MacGinitie Reading Tests, Readiness Skills. The following description has been taken from the Teacher's Manual of this test (Gates-MacGinitie, 1968, pp. 1-2).

> The Readiness Skills test is intended for use at the end of kindergarten or at the beginning of grade 1. It consists of eight subtests: Listening Comprehension, Auditory Discrimination, Visual Discrimination, Following Directions, Letter Recognition, Visual-Motor Coordination, Auditory Blending, and Word Recognition.
>
> ### Listening Comprehension
>
> The Listening Comprehension subtest measures the child's ability to understand the total thought of a simple story. The subtest includes 20 stories (plus a sample story), each with a corresponding panel of three pictures in the test booklet. The examiner reads these stories aloud to the children. Each story is followed by a question, and the child is to mark the one picture in each panel that best answers the question.
>
> ### Auditory Discrimination
>
> The Auditory Discrimination subtest measures the child's skill in distinguishing between two words of similar sound. It includes 21 pairs of pictures (plus one sample pair) that corresponds to 21 pairs of words. Each pair differs in only one sound. After naming both pictures in a pair, the examiner pronounces the name of one of the pictures again. The child marks the corresponding picture.
>
> ### Visual Discrimination
>
> The Visual Discrimination subtest measures the child's ability to distinguish between the printed forms of two words. It includes 24 items (and a sample), each consisting

Visual Discrimination (continued)

of four words -- three alike and one different. The child is to mark the one word that is different.

Following Directions

The Following Directions subtest measures the child's skill in following increasingly more complex directions. This subtest has 14 items (and a sample), consisting of one or more directions which the examiner reads aloud. Corresponding to each set of directions is a panel of four pictures to be marked by the child as he carries out the directions.

Letter Recognition

The Letter Recognition subtest is designed to measure the child's recognition of letters of the alphabet. It consists of 18 items (and a sample), with four letters of the alphabet in each item. The examiner names one letter which the child must recognize and mark.

Visual-Motor Coordination

The Visual-Motor Coordination subtest measures the child's skill in completing printed letters. Seven letters (plus a sample) are shown as models, and a part of each letter is also printed in the adjoining column. The child is to complete each letter in the adjoining column, following the model.

Auditory Blending

The Auditory Blending subtest provides information about the child's ability to join the parts of a word, presented orally, into a whole word. The 14 items (plus a sample) consist of three pictures each. The examiner pronounces the name of one of the pictures in each item, saying it in two or three parts, and the child marks the corresponding picture.

Word Recognition

The Word Recognition subtest measures the child's ability to recognize whole words when presented in isolation. This subtest has 24 sets of three words, plus a sample set. The examiner reads one word in each set and the child marks that word.

Appendix B

Iowa Test of Basic Skills (Reading and Mathematics)

Reading and mathematics achievement of those second and fourth grade students participating in the study was assessed by the Iowa Test of Basic Skills, Form 5. Level 8 was employed at the second grade level and Level 10 at the fourth grade. While the complete battery was administered only Vocabulary, Reading, and Mathematics subtest scores were used in the evaluation process. The description of these subtests which follow have been taken from the Iowa Test of Basic Skills, Forms 5 and 6, Manual for Administrators, Supervisors, and Counselors (1974, pp. 47 and 49) and as well as the information contained on this test itself.

Vocabulary

> The items in the test consist of a word in context followed by four possible definitions. Stimulus words were chosen from the Thorndike (44) and Rinsland (43) word lists, as were words constituting the definitions. Nouns, verbs, and adjectives were given approximately equal representation, with a few adverbs at each grade level.
>
> It is not the purpose of a single item in a test of this type to determine whether the pupil knows the meaning of a single word (the stimulus word) only. Nor is it necessary that the response words be easier than the stimulus word. Rather, the immediate purpose of each item is to determine if the pupil is able to discriminate among the meanings of all the words used in the item, Thus, a 40-item vocabulary test may sample as many as two hundred words from his general vocabulary, instead of only 40.

Reading Comprehension

The Reading Comprehension Test consists of selection varying in length from a few sentences to a full page. The passages were chosen in an attempt to represent as completely as possible all of the types of material encountered by the pupils in their everyday readings. They were adapted from a wide variety of sources: newspapers, magazines, encyclopedias, government publications, textbooks, and original literary works.

It will be noted that the items in these tests are somewhat longer and more involved than most items in other current elementary school reading tests. This, again, is a reflection of the extent to which complex processes are being measured by the test. Test items which contain only short responses tend to measure relatively superficial comprehension. Furthermore, short-response items are more likely to be answerable through a process of matching words in the responses with words in the passage without any real understanding. Avoidance of word-matching opportunities usually requires fairly lengthy restatements of ideas in the passage.

In the lower levels it was necessary to include a few items measuring rather simple skills because this represents the level of reading development of the average or below-average pupil. Even at this level, an attempt was made to test for understandings and simple inferences whenever possible.

More complex skills were gradually introduced as pupil performance in the tryout test demonstrated readiness for them. To score well on the last few selections, a pupil has to use all of the skills generally associated with mature adult reading.

Mathematics Skills

The Mathematics Skills subtest was designed to test knowledge of the number system and the terms and operations used in mathematics as well as the ability to apply these skills in problem solving situations.

Appendix C

Individualized Career Test

Kindergarten and Second Grade Instrument

These tests were developed by the evaluators and consisted of a series of scenes depicting work and non-work activities. The scenes were shown to the students individually. The instrument was designed to measure the awareness of the student's career concepts as related to the units in the project at each designated grade level. Administration of the instrument took place when the instructional portion of the project units were completed. Testing took place at all grade levels for experimental and control groups at approximately the same time.

Miniature copies of the scenes used in the instrument are found in Appendix C. Actual questions and procedures used in the individual testing are included.

GRADE LEVEL CONCEPT QUESTIONS, KINDERGARTEN, SERIES A

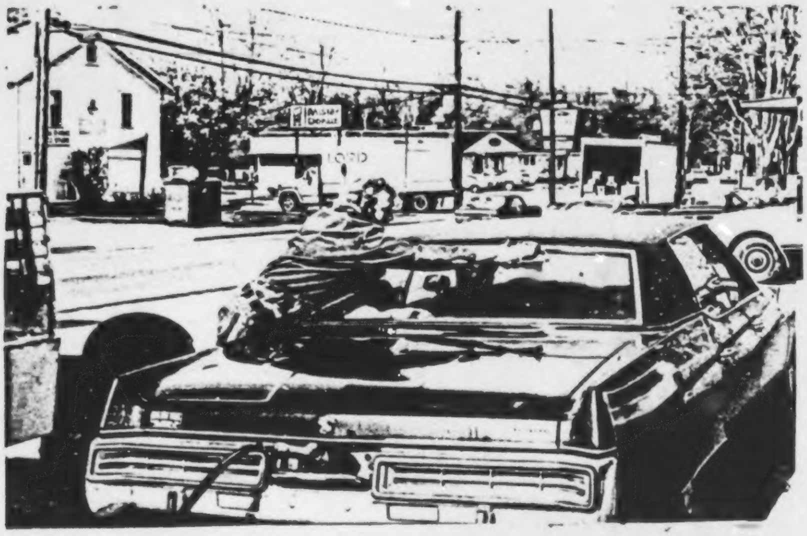
Kindergarten, What is work? (possible 5 points)

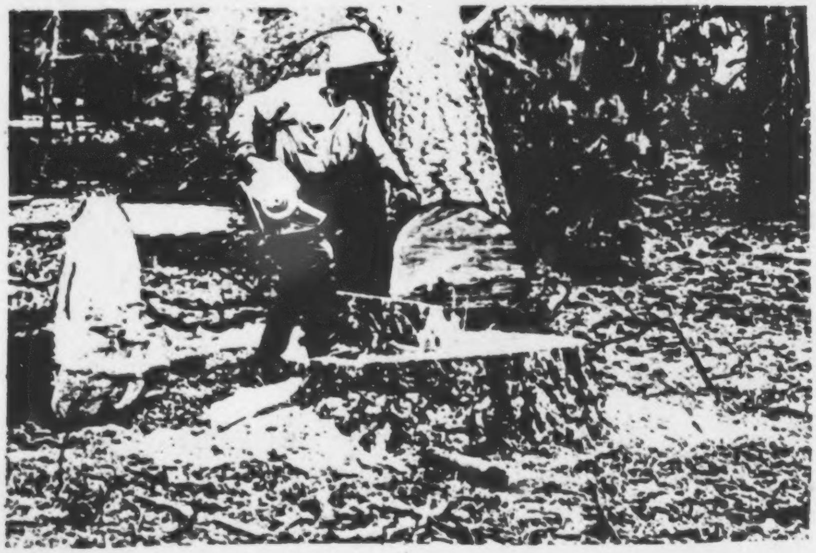
A. Instruction:

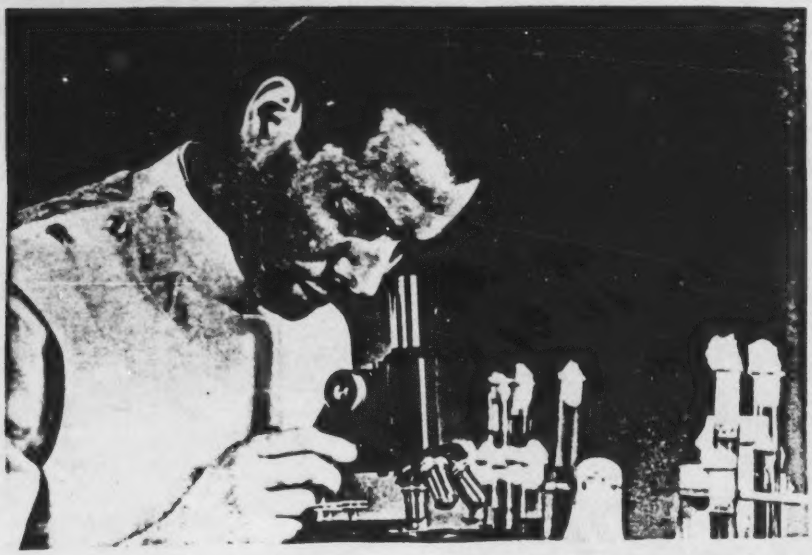
Please tell me the job of each of the people shown in each of the pictures. (Pupils must indicate at least one definitive duty)

B. Scenes

A - 1. Gas station attendant
A - 2. Lumberjack
A - 3. Doctor/Scientist
A - 4. Meat cutter/Butcher
A - 5. Delivery man/Truck driver







THIS SIDE OF STREET
WISE
WISE
WISE
WISE
WISE

GRADE LEVEL CONCEPT QUESTIONS, KINDERGARTEN, SERIES B

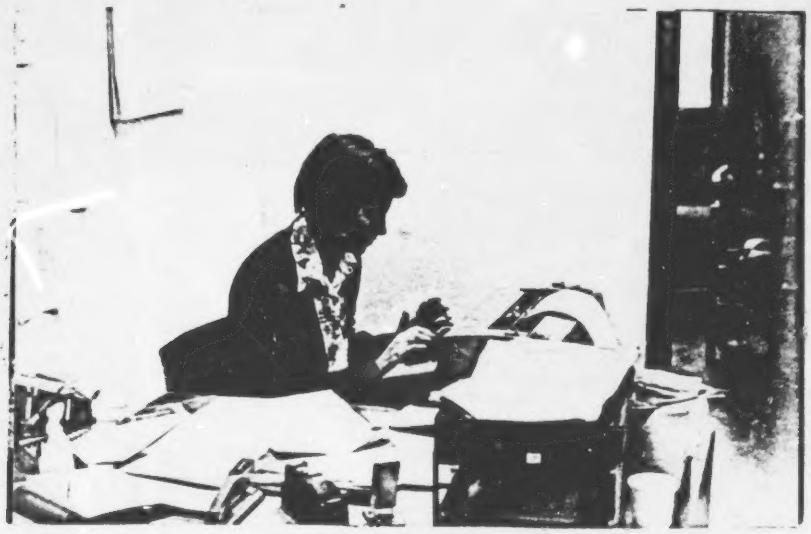
Kindergarten, What is work? (possible 6 points)

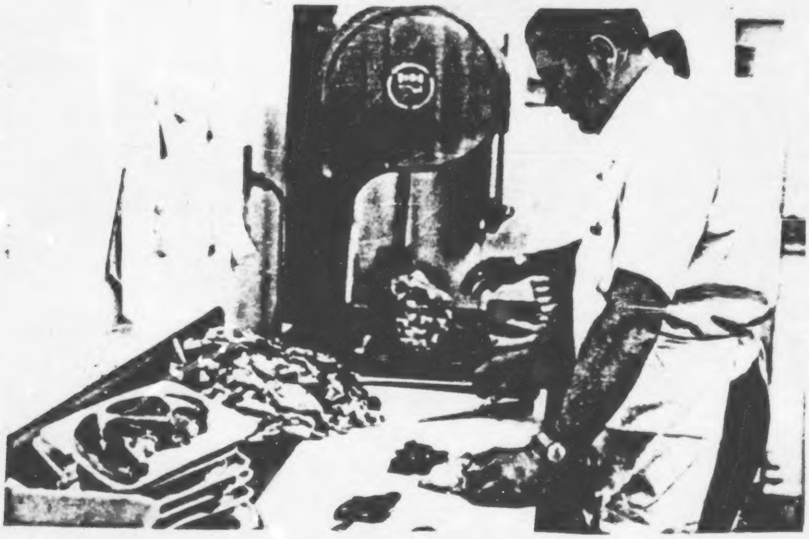
A. Instruction:

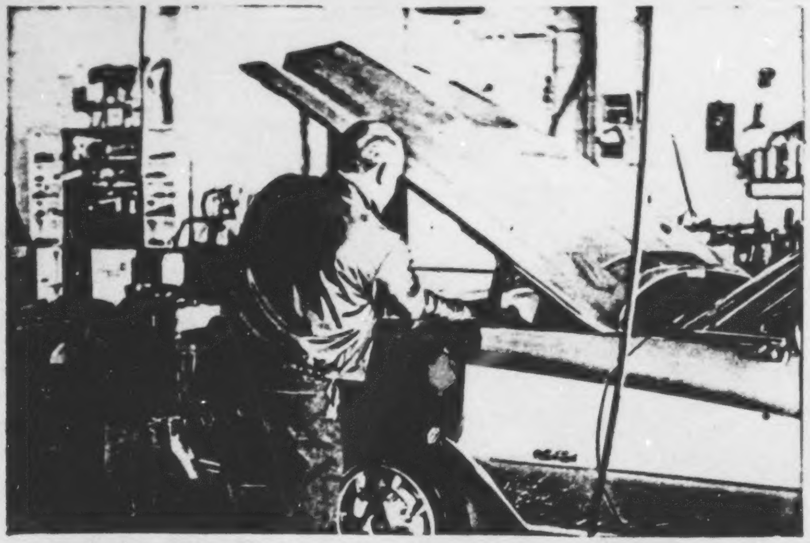
Place in a pile all the pictures that show people at work.

B. Scenes

B - 1. Typist (yes)
B - 2. Butcher (yes)
B - 3. Mechanic (yes)
B - 4. Students at project (?) Why did you give this answer? Classification (bonus)
B - 5. Woman at coffee urn (no)







GRADE LEVEL CONCEPT QUESTIONS, KINDERGARTEN, SERIES C

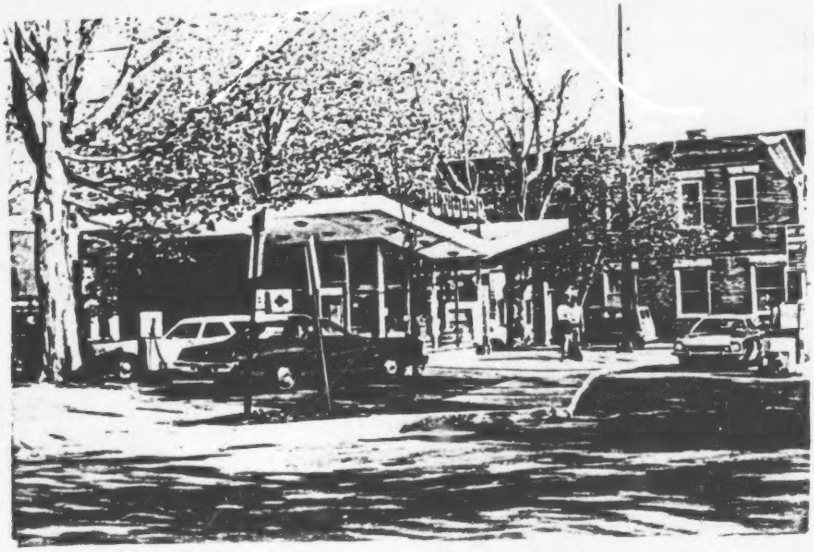
Kindergarten, What is work? (possible 6 points)

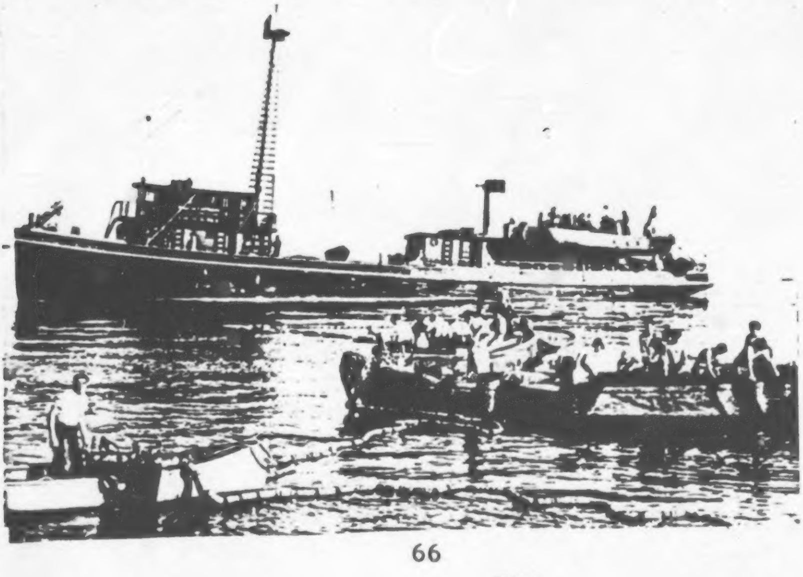
A. Instruction:

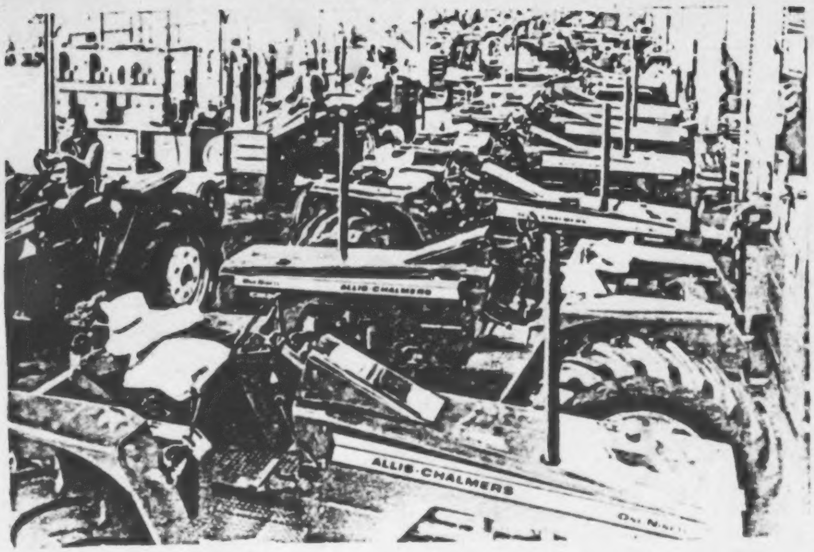
Which of the following pictures show offices or business that might be found in Erie or Millcreek?

B. Scenes

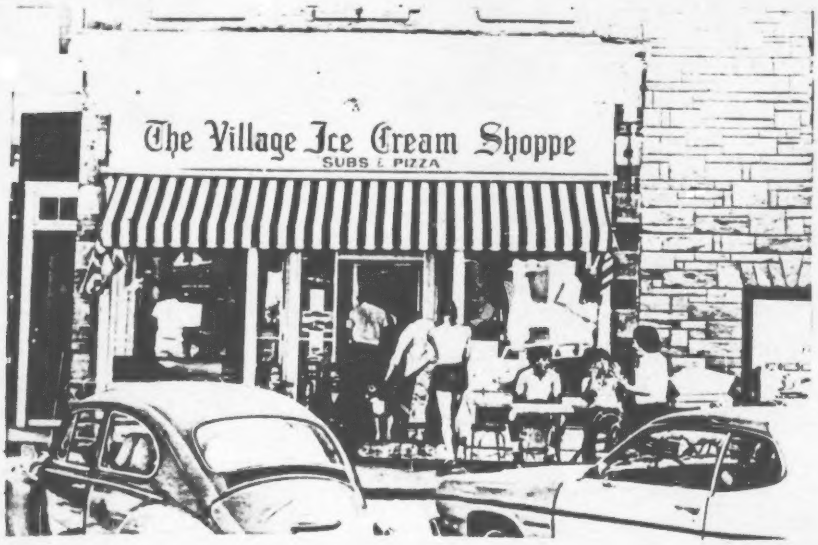
C - 1.	Gas station	(yes)	
C - 2.	Fishing fleet	(yes-no)	Children asked to explain answer
C - 3.	Factory assembly	(yes-no)	Why did you give this answer (bonus)
C - 4.	Real estate office	(yes)	
C - 5.	Ice cream shop	(yes)	






ALLIS-CHALMERS
ALLIS-CHALMERS

John Peck
REAL ESTATE


The Village Ice Cream Shoppe
SUBS & PIZZA

GRADE LEVEL CONCEPT QUESTIONS, KINDERGARTEN, SERIES D

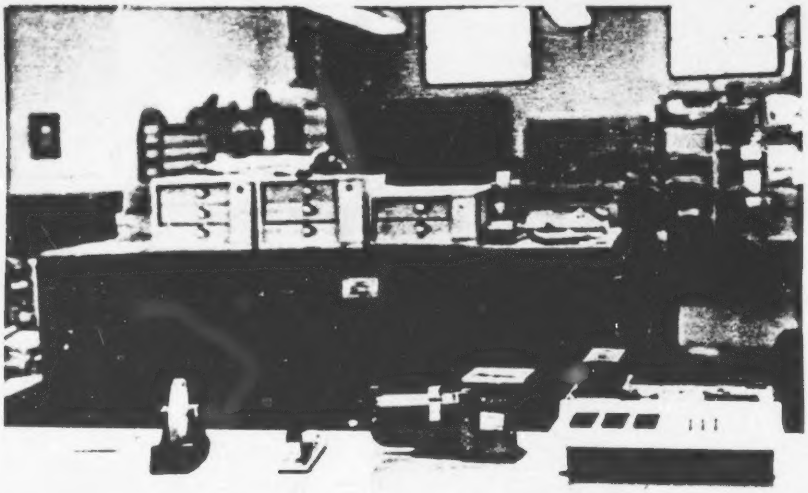
Kindergarten, What is work? (possible 6 points)

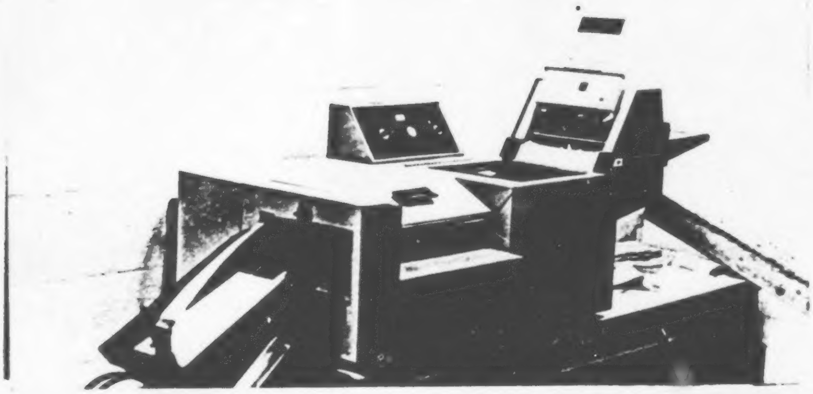
A. Instruction:

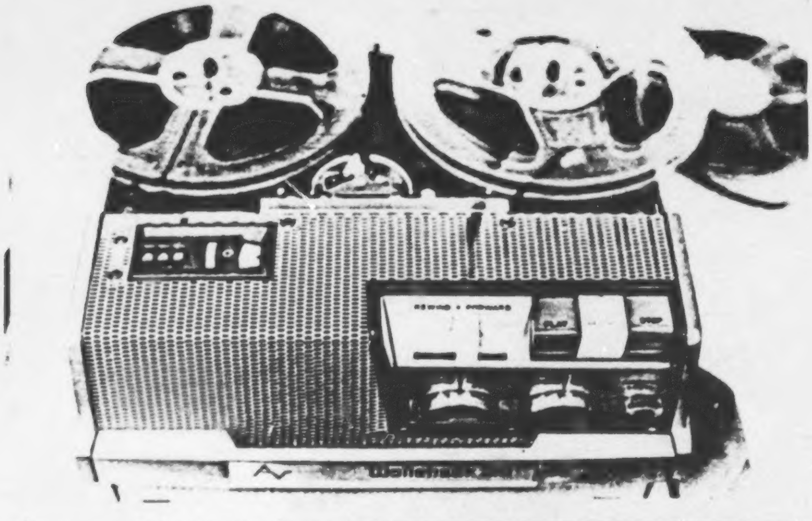
Which of the following pictures show machines and equipment that would be found in most offices?

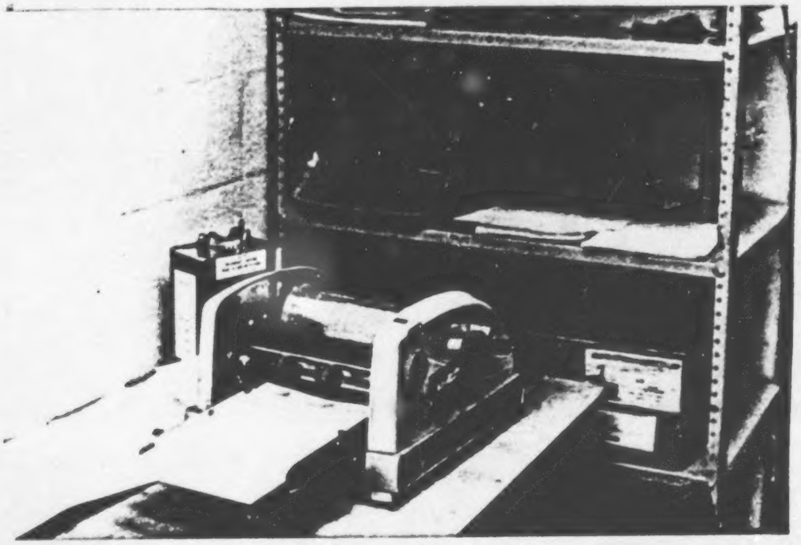
B. Scenes

D - 1.	Scale, stapler, etc.	(yes)	Why did you say "yes" or "no"? (bonus)
D - 2.	Copier	(yes)	
D - 3.	Typewriter	(yes)	
D - 4.	Tape recorder	(no)	Why did you say "yes"?
D - 5.	Ditto machine	(yes)	









GRADE LEVEL CONCEPT QUESTIONS, GRADE 2, SERIES A

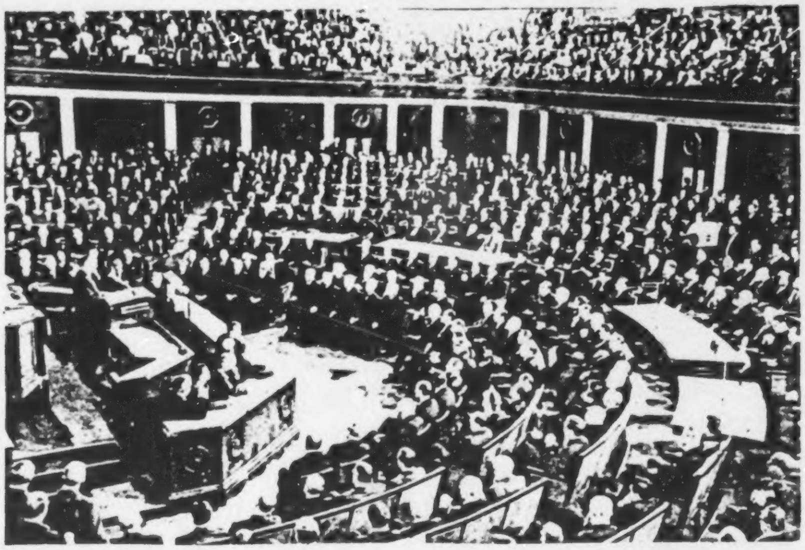
Who works in occupations? What are the jobs? (possible 6 points)

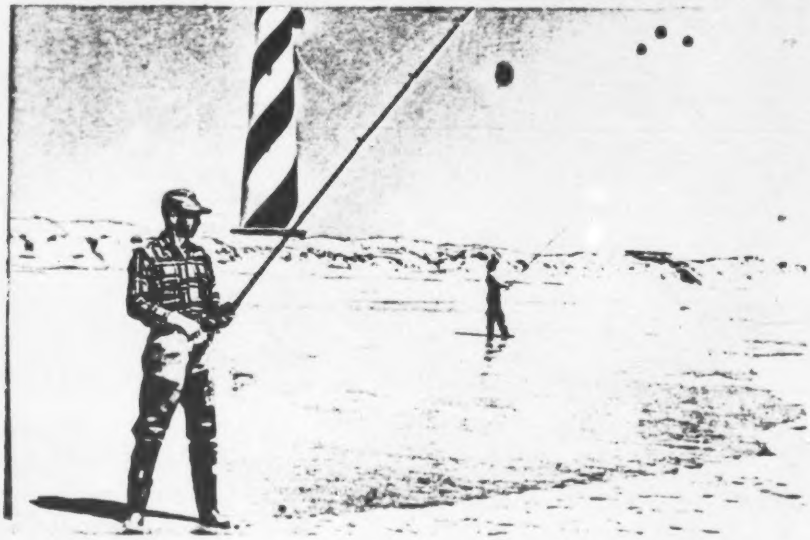
A. Instructions:

Select pictures that show people working. What jobs do you see in the picture?

B. Scenes

A - 1. Congress Why did you say ________? (bonus)
A - 2. Fisherman
A - 3. Mechanic
A - 4. Farmer
A - 5. Steel worker





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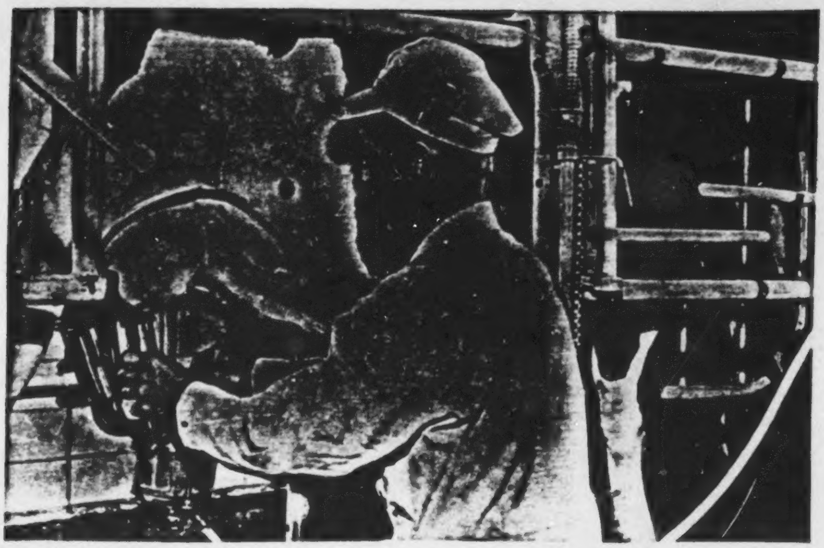
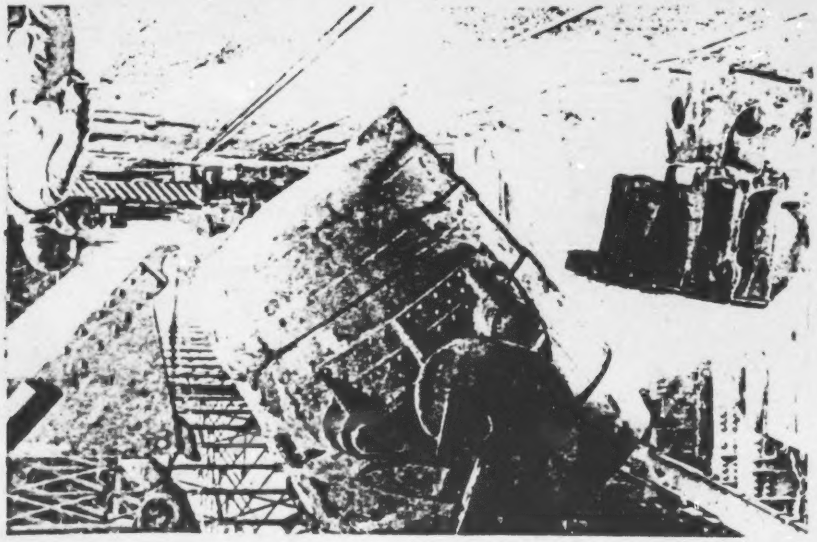




GRADE LEVEL CONCEPT QUESTIONS, GRADE 2, SERIES B

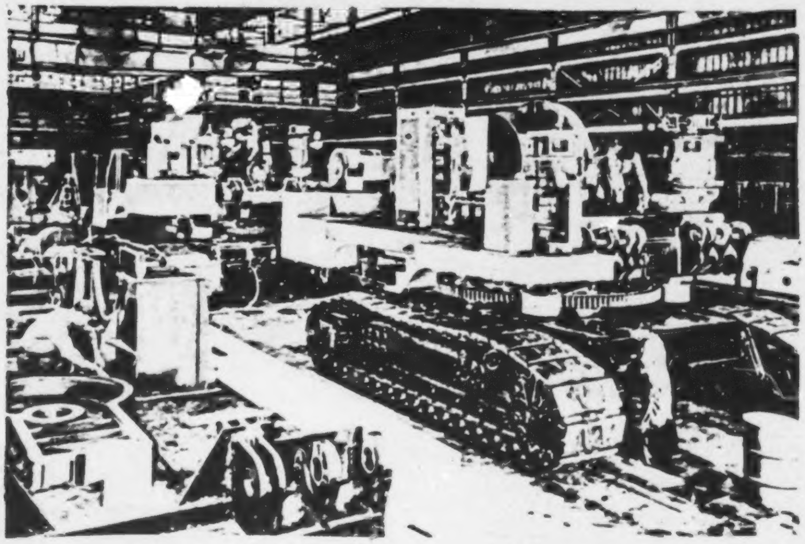
What are the occupations? What products are produced? (possible 5 points)

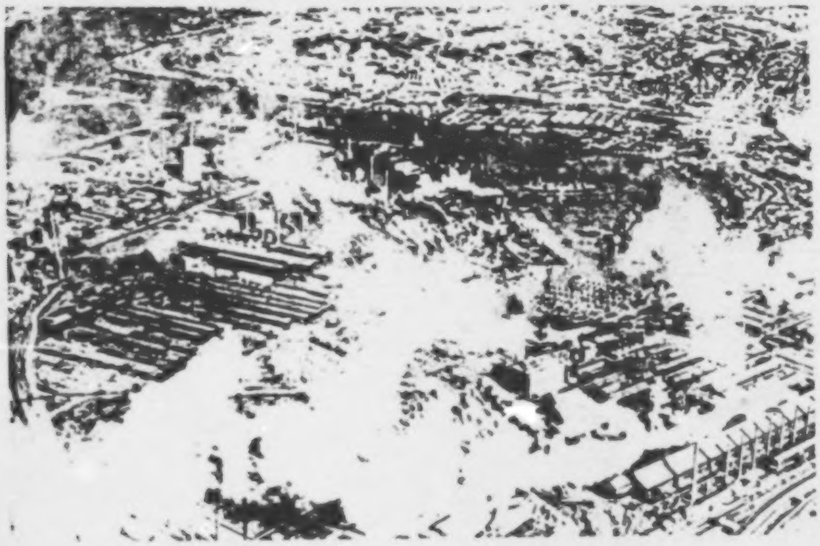
A. Instructions:

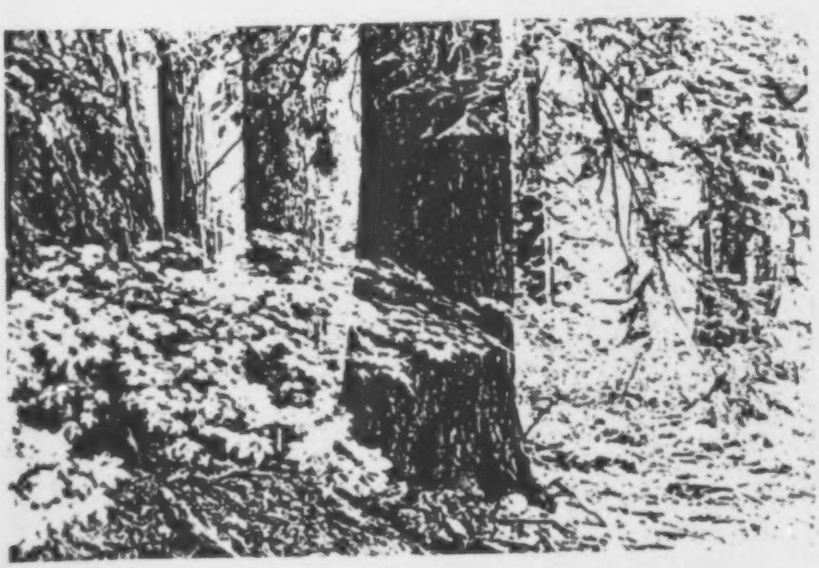
Look at each of the pictures and tell me what products are associated with each scene. What products are found in this picture?

B. Scenes

B - 1. Cotton field
B - 2. Tractor assembly
B - 3. Supermarket
B - 4. Factory -- aerial
B - 5. Forest







GRADE LEVEL CONCEPT QUESTIONS, GRADE 2, SERIES C

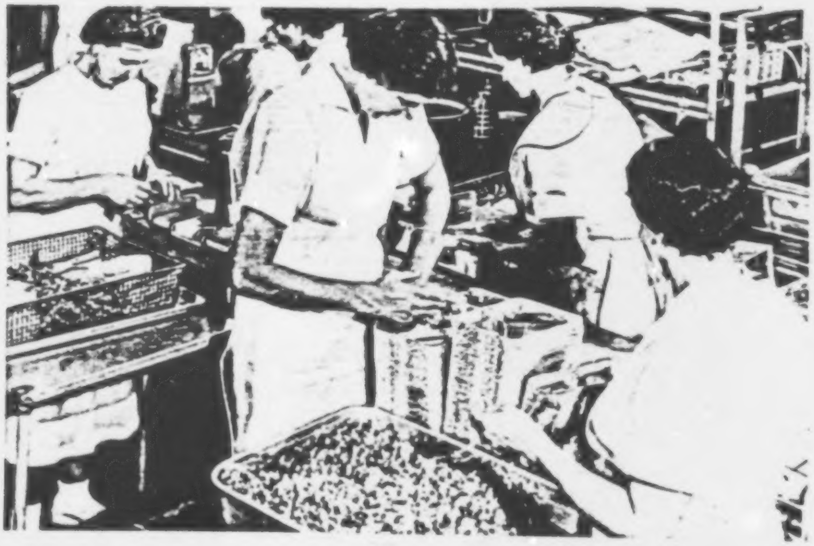
Who works in these occupations? How do they help people? (possible 6 points)

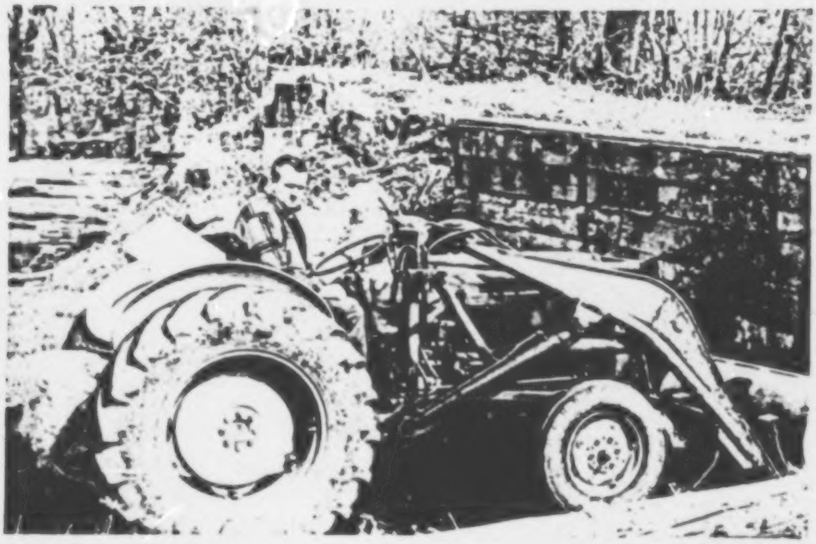
A. Instructions:

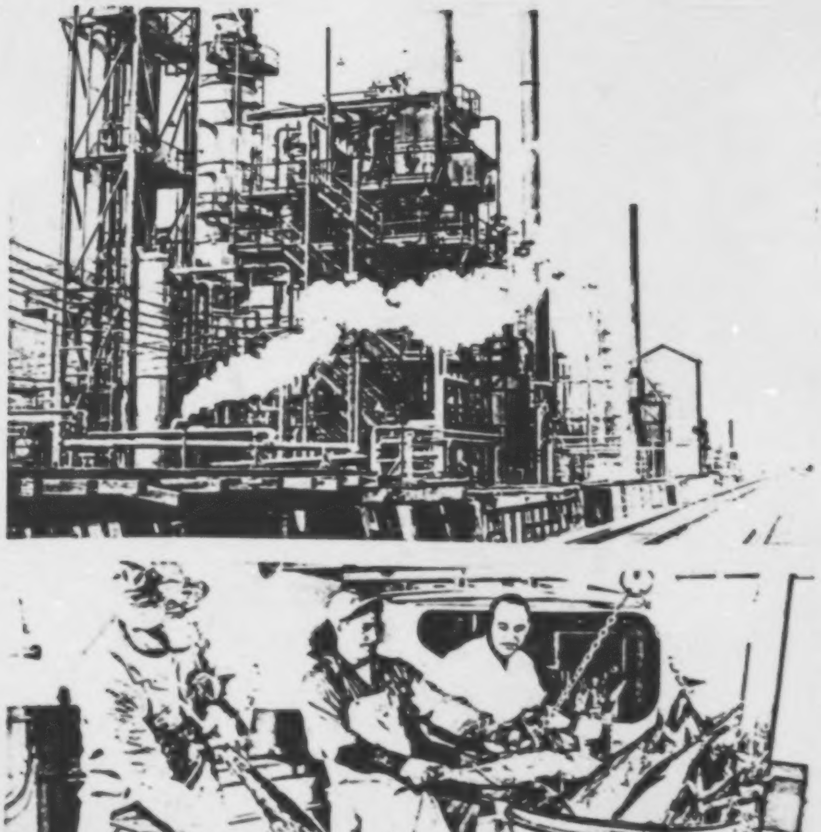
How do the people in the following scenes help us?

B. Scenes

C - 1. Women preparing food
C - 2. High-lift tractor
C - 3. Car assembly Why did you say ______? (bonus)
C - 4. Oil drilling rig
C - 5. Processing fish







GRADE LEVEL CONCEPT QUESTIONS, GRADE 2, SERIES D

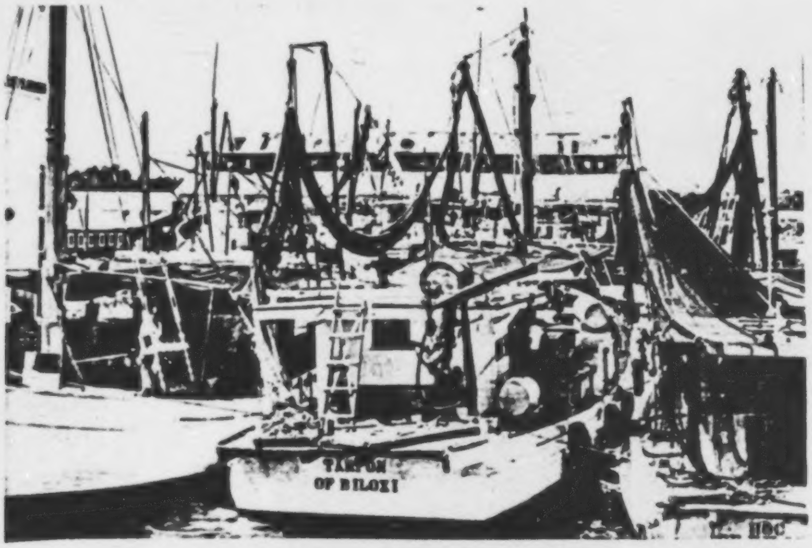
What are the occupations? Recognition of jobs. (possible 8 points)

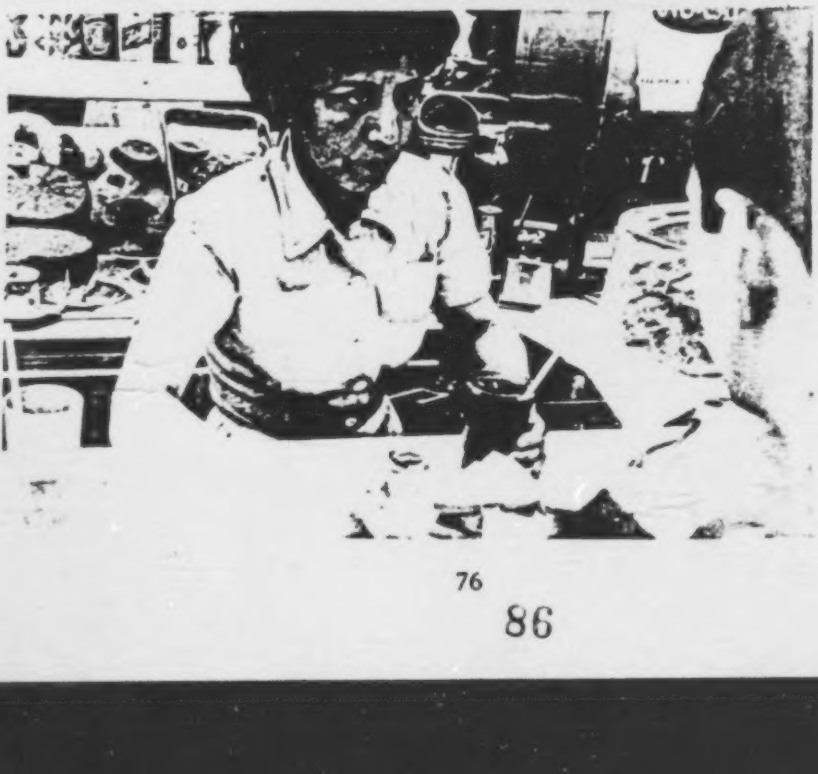
A. Instructions:

Ask: Which pictures show people working? What jobs can you see in each of these pictures? (Students must identify at least one job correctly.)

B. Scenes

D - 1. Fishing/pleasure boats
D - 2. Cafeteria worker
D - 3. Laundromat
D - 4. Cornfield
D - 5. Steamshovel





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BLEACH & FOLD
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1.20
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PICK UP LAUNDRY SAME DAY
LAUNDRY BAGS FOR SALE

PEABODY
COAL COMPANY

Appendix D (the student book for the Career Awareness Inventory) was removed as duplicate ERIC material. See ED 082 062.

Appendix E

Stanford Achievement Test
Advanced Battery

The Stanford Achievement Test, Advanced Battery was used to assess the reading and mathematics skills of the ninth grade students participating in the experiment. Descriptions of the specific subtests used which follow are taken from the *Stanford Achievement Test, Manual, Part I, Teacher's Directions for Administering* (1973, pp. 22-23).

Vocabulary

> The Vocabulary Test consists of 50 multiple-choice items. Unlike the lower batteries of Stanford Achievement Test, this Vocabulary Test is not a dictated test. The pupils read the items themselves since the reading level of the items is lower than the grade levels for which the Advanced Battery is designed. The test items were selected so that half of them are from the content fields of mathematics, the natural sciences, the social sciences, and the arts and crafts area; the other half contain the kinds of words most often encountered in the language arts, fiction, nonfiction, and reference books. The test words were selected by sampling word counts of children's usage, and the kinds of reading materials they are likely to encounter in and out of school.

Reading Comprehension

> The Reading Comprehension Test consists of twelve reading passages and one poem, with a total of 74 test items, passages arranged in order of difficulty.
>
> The reading passages sample the broad variety of content pupils at this level are likely to encounter in or out of school, and that pupils of diverse backgrounds would enjoy reading. There is content from social studies, science, the fine arts, current events, literature, etc. The test questions sample these comprehension skills: 1) comprehension of global meaning, 2) comprehension of the meaning of detailed information, 3) comprehension of implied meaning, 4) use of context for word and paragraph meaning, 5) drawing inferences from what has been read.

Reading Comprehension (continued)

The main emphasis is on the ability to gather information from connected discourse. The words used are those which could reasonably be expected to be in the reading vocabulary of pupils at this level.

Mathematics Concepts

The Mathematics Concepts Test has 35 items which relate to number, notation, properties of operations, geometry, measurement, and function, with one item each on clock modules and statistics. The difficulty of the items is wide, ranging from matching an Arabic numeral with equivalent English words, to graphing values on a number plane.

Mathematics Computation

The Mathematics Computation Test consists of 45 items which cover a wide variety of mathematical calculations including the four fundamental operations along with whole numbers, common and decimal fractions, percent, average, estimation, exponents, simplification of sentences, integers, and the graphing of a solution set.

Mathematics Applications

The Mathematics Applications Test has 40 items and is designed to use a pupil's knowledge of concepts and his computational ability to solve problems which occur in life situations. In addition, the pupil is required to analyze the problem and to use his mathematical knowledge appropriately. The problems cover a wide range of situations, including the interpretation of data presented in graphs, percent values, buying and selling, English and metric measures, rate problems, and map scales. There are problems in averages and probability, in graphing solution set, and one integer item. Several problems require the pupil to identify a suitable solution strategy or to convert a problem into a mathematical sentence.

Appendix F

STEP-SCAT Achievement Test
Series II

The Reading and Mathematics subsections of the STEP-SCAT Series II were used to assess the reading and mathematics achievement of the tenth grade students prior to and at the conclusion of the experimental procedures. Descriptions of the subtests used which follow have been taken from the STEP-SCAT Series II Handbook (1971, pp. 22, 75, and 85).

Reading

> The Reading tests measures the ability to read and understand a variety of materials. The sentences and passages that form the stimuli include stories and poems as well as selections from the literature of the sciences, social studies, and humanities. All forms of the tests have two separately timed parts and yield a single score. Part I requires 15 minutes of working time and contains 30 sentence comprehension items of two basic types: straightforward comprehension and inference. The former type asks the student to choose the option word closest in meaning to an underlined word as that word is used in a given sentence. Some of the underlined words are familiar enough even without context to be appropriate in difficulty for the levels at which they are used. Other words are so rare that they would be beyond the understanding of most students at a particular level if it were not for the facilitating effect of context. The inference type of item asks each student to choose the option word that best describes the object, situation, activity, or mood presented by the sentences. Part II requires 30 minutes of working time and contains 30 items. Six passages of varying lengths are presented, and several questions are asked about each passage. The reading skills required of the student include comprehension translation and inference, and analysis.

Mathematics Computation

> The Mathematics Computation tests measure a wide variety of computational skills, including fundamental operations with

Mathematics Computation (continued)

integers, fractions, decimals, and percent; estimation; evaluation of formulas; solution of simple inequalities; and manipulations with exponents. These one-part tests, appropriate for grades 4 through 12, require 40 minutes of working time, and each contains 60 items. Reading is reduced to a minimum.

Mathematics Basic Concepts

The Mathematics Basic Concepts tests measure the elementary mathematical concepts, abilities, and skills that should be a part of the general mathematics education of all students. Each one-part test requires 40 minutes of working time and contains 50 items. The concepts involve number and operation; measurement and geometry; relations, functions, and graphs; proof; probability and statistics; mathematical sentences; sets and mathematical systems; and application. The student is asked to demonstrate his comprehension of these concepts through recalling facts, performing mathematical manipulations, and exercising higher mental processes.

Appendix G

9-60222

assessment of career development

Student Test Booklet (form C)

About Career Planning

Whether you know it or not, there's a CAREER ahead of you—a whole series of experiences and decisions related to your *educational* and *job* future. Answers to the questions in this booklet will indicate what you and other students at your school *know* about and *have done* about career planning. Your school will use this information to plan activities and programs that will help you and others at your school prepare for the career decisions that lie ahead. A report summarizing the scores for students at your school will be sent to the guidance office in a few weeks. In the meantime, the questions in this booklet will help *you* identify some of the things you know and have done—or haven't done—about career planning.

STOP DO NOT GO TO THE NEXT PAGE UNTIL TOLD TO DO SO!

The American College
Testing Program

IDENTIFYING INFORMATION

On the front side of your answer sheet, print your school name, today's date, and your group number in the spaces provided.

Turn the answer sheet on its side and complete all information according to the following directions:

1. Use only a soft lead *pencil* to mark your answer sheet. Make no marks in your test booklet and do not use a pen.
2. NAME: Print your full *legal* name (last name, first name, and middle initial) in the boxes provided on your answer sheet. No nicknames please! Use only one box for each letter of your name. Leave an empty box between names. Then, for *each* of the boxes with a letter, find the matching letter oval above and completely blacken it with your pencil. Blacken the blank oval in each column above an empty box.
3. GRADE: Next, beside the section you have just completed, blacken the oval next to your grade.
4. DATE OF BIRTH: Next, indicate your date of birth by blackening the correct oval for the month in which you were born. Print the year of your birth in the boxes provided and then completely blacken the matching number ovals below.
5. SEX: Next, indicate your sex by blackening the appropriate oval.
6. BACKGROUND: To be most helpful to all students, we need to find out whether students of different backgrounds answer the questions in this booklet in different ways. If your background is listed below and if you wish to identify yourself, blacken the appropriate letter oval on the answer sheet.

Afro-American/black	A
American Indian	B
Caucasian American/white	C
Spanish American/Puerto Rican/Chicano	D
Oriental American	E
Other	F
I prefer not to respond	G

NOTE: Further directions for the following items will be given by the test administrator.

IDENTIFICATION NUMBER
SPECIAL CODE

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DIRECTIONS

This booklet is divided into 6 units which, together, take about 3 class periods to complete. The separate answer sheet is also divided into units that match the units in this booklet. For each question in this booklet there is a matching row of ovals on the answer sheet. To mark your answer to each question blacken the oval with the same letter. If you are not sure of the answer, give your best guess. Use a soft lead *pencil* and be sure to erase completely any answer you wish to change.

Example: Choose the one *best* answer.

Test Booklet	Answer Sheet
Question	Question Ⓐ Ⓑ ● Ⓓ
17. A person's career involves — A. education B. work life C. both education and work life. D. neither education nor work life	**17.** correct answer has been marked

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UNIT
1

JOB KNOWLEDGE
(30 minutes)

Jobs differ in many ways-the duties to be performed, the conditions under which work is done, the interests of people working in the jobs, etc. In this unit you will be asked questions about jobs and workers in jobs. Choose the one best answer to each question and mark that answer in **unit 1** on your answer sheet. If you work steadily, you should be able to answer almost all of the questions in 30 minutes.

STOP **DO NOT GO TO THE NEXT PAGE UNTIL TOLD TO DO SO.**

JOB KNOWLEDGE
(30 minutes)

Directions: Choose the one best answer–A, B, C, or D–for each of the items that follows:

1. Who would most likely assist people in making arrangements for an out-of-town trip?

A. airline stewardess or steward
B. porter
C. urban planner
D. travel agent

2. Who packages and keeps track of goods ordered by customers?

A. a sales manager
B. a mail room supervisor
C. a dispatcher
D. a shipping clerk

3. Who posts credits and debits in a ledger?

A. a postal clerk
B. a stenographer
C. a bookkeeper
D. an actuary

4. Who spends the most time working with groups of people?

A. a bookkeeper
B. a playground director
C. a proof reader
D. a translator

5. In which job is knowledge of English grammar most often used?

A. sign painter
B. millwright
C. secretary
D. dressmaker

6. Which one of the following jobs most often requires working irregular hours?

A. auto mechanic
B. junior high school teacher
C. barber
D. newspaper reporter

7. Which of the following have the least dangerous job?

A. medical lab technicians
B. iron workers
C. police officers
D. coal miners

8. Mathematical ability is most important for success in which one of the following jobs?

A. librarian
B. mechanical engineer
C. anthropologist
D. hotel manager

9. Who spends the most time standing while working?

A. a securities account executive
B. an optician
C. a flight engineer
D. an appliance salesperson

10. Which one of the following jobs would most likely require working during evenings or Saturdays?

A. department store clerk
B. telephone installer
C. elementary school teacher
D. roofer

11. Having a friendly personality is especially important for success in which one of the following jobs?

A. ticket agent
B. sculptor
C. personnel assistant
D. auto salesperson

12. Which of the following jobs usually requires the least amount of training?

A. physical therapist
B. electrical engineer
C. licensed practical nurse
D. hospital attendant

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13. Which of the following works under almost constant stress?

A. industrial engineer
B. bulldozer operator
C. air traffic controller
D. bartender

14. The ability to imagine how objects would look when viewed from different angles is most important for success in which one of the following jobs?

A. photographer
B. dentist
C. veterinarian
D. astronomer

15. Which of the following jobs usually requires the least amount of on-the-job training?

A. route-delivery driver
B. police officer
C. air traffic controller
D. firefighter

16. Which one of these jobs most often requires working irregular hours?

A. file clerk
B. nurse
C. key punch operator
D. systems analyst

17. Interest in reading and studying is most helpful in which one of the following jobs?

A. bookbinder
B. computer programmer
C. horticulturist
D. historian

18. Workers in which one of the following jobs are likely to have interests most similar to those of accountants?

A. bankers
B. lawyers
C. chemists
D. engineers

19. Which of the following jobs requires the longest period of specialized training?

A. meter reader
B. author
C. child care aide
D. bank teller

20. In which of the following jobs would a person who prefers *work involving many different kinds of tasks* **be most satisfied?**

A. assembly line worker
B. hardware store manager
C. office clerk
D. typist

21. In which of the following jobs would a person who values *job security (not being put out of work)* **be most satisfied?**

A. postal clerk
B. carpenter
C. disk jockey
D. politician

22. In which of the following jobs would a person who values *independence (deciding for yourself how to do your job)* **be most satisfied?**

A. computer operator
B. bookkeeper
C. farmer
D. telephone operator

23. In which of the following jobs would a person who values *job security* **probably be least satisfied?**

A. truck driver
B. singer with a band
C. farmer
D. credit manager

24. In which of the following jobs would a person who values *independence* **and doesn't mind** *working alone* **be most satisfied?**

A. newspaper editor
B. research chemist
C. hospital orderly
D. factory worker

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25. **Who spends the most time helping people with personal or family problems?**
   - A. banker
   - B. police officer
   - C. clergyman or clergywoman
   - D. teacher

26. **Having a friendly personality is especially important for success in which of the following jobs?**
   - A. psychologist
   - B. airline stewardess
   - C. payroll clerk
   - D. bus driver

27. **Who spends the least time working outdoors?**
   - A. an encyclopedia salesperson
   - B. a rancher
   - C. a mail carrier
   - D. a cement finisher

28. **A person whose hobbies are rock collecting and exploring caves would probably have interests most similar to those of—**
   - A. biologists
   - B. oil well drillers
   - C. geologists
   - D. bricklayers

29. **Six years of college and professional training are usually needed to get a job as—**
   - A. an elevator repair worker
   - B. a cashier
   - C. a draftsman or draftswoman
   - D. an optometrist

30. **Biology and chemistry courses would probably be most helpful to a student thinking about becoming a—**
   - A. meatcutter
   - B. tailor
   - C. jeweler
   - D. dietitian

31. **A four-year college degree is not usually needed to get a job as—**
   - A. a pharmacist
   - B. an astronaut
   - C. a musician
   - D. a physicist

32. **Buildings are usually planned and designed by—**
   - A. a pattern maker
   - B. an architect
   - C. a building contractor
   - D. an engineer

33. **Predicting changes in weather is the job of—**
   - A. a meteorologist
   - B. an astronomer
   - C. a demographer
   - D. a geologist

34. **Helping physically disabled people return to work is the job of—**
   - A. a medical technologist
   - B. a rehabilitation counselor
   - C. a clinical psychologist
   - D. a physiologist

35. **A high school diploma is usually all that is needed to get a job as—**
   - A. a clothing salesperson
   - B. an X-ray technician
   - C. a mining engineer
   - D. a home economist

36. **Civics and current events courses would probably be most helpful to a student thinking about becoming a—**
   - A. cartoonist
   - B. music teacher
   - C. nursery worker
   - D. bookkeeper

37. **A tool and die maker's job is most like that of—**
   - A. a welder
   - B. a machinist
   - C. an electrician
   - D. a boilermaker

GO TO THE NEXT PAGE.

38. For employment, a biologist usually must have at least—

A. a two-year college degree
B. a vocational-technical school certificate
C. a four-year college degree
D. a certificate showing completion of an apprenticeship program

39. Placing children in foster homes and arranging adoptions are most often done by a—

A. probation officer
B. child psychologist
C. social worker
D. lawyer

40. An insurance company's decision of how much money it is willing to pay for damage to property it has insured is based on the report of—

A. a claims adjuster
B. a purchasing agent
C. an auto-body repair worker
D. a securities account executive

41. It is usually necessary to enter an apprenticeship program to become a—

A. dry cleaner
B. florist
C. plumber
D. bank teller

42. A four-year college degree is usually needed to get a job as—

A. a printer
B. a forester
C. an actor or actress
D. a tool and die maker

43. Speech and debate courses would probably be most useful to a student thinking about becoming a—

A. barber
B. radio announcer
C. taxicab driver
D. purchasing agent

44. AN INSURANCE AGENT

A. hires employees for insurance companies
B. sets the rates charged by insurance companies
C. sells insurance policies
D. decides which applications for insurance should be accepted

45. A PHARMACIST

A. develops new methods of undersea farming
B. studies the digestive process of human beings
C. prescribes and administers drugs and medicines
D. prepares and dispenses drugs and medicines

46. A SURVEYOR

A. finds and marks property lines
B. sells stocks and bonds
C. designs roads and highways
D. asks people who they plan to vote for in upcoming elections

47. A CERTIFIED PUBLIC ACCOUNTANT

A. certifies applicants for public housing
B. compiles and checks business records
C. decides how products should be advertised
D. does public relations work

48. A DATA-PROCESSING EQUIPMENT SERVICE WORKER

A. repairs and maintains dictating machines
B. installs and repairs duplicating machines
C. installs and repairs computers
D. provides researchers with data

49. A LANDSCAPE ARCHITECT

A. operates bulldozers and other types of earth moving equipment
B. designs the walls of buildings
C. draws city zoning maps
D. designs the layout of outdoor areas

GO TO THE NEXT PAGE.

Directions for items 50-58: In almost any job you will have to work with at least one of the following:

A. THINGS or MACHINES (also tools and materials such as food, wood, or metal) Bricklayers and electricians work mainly with THINGS or MACHINES.

B. PEOPLE (people you help, serve, and sell things to) Sales clerks and grade school teachers work mainly with PEOPLE.

C. IDEAS or THEORIES (also knowledge and new ways of saying something—for example with words, equations, or music) Song writers and scientists work mainly with IDEAS or THEORIES.

D. DATA or RECORDS (also files, money, and steps for handling data and records—for example in an office) Secretaries and cashiers work mainly with DATA or RECORDS.

Choose the one best answer—A, B, C, or D—for each of the items that follows:

50. A softball coach works mainly with—

A. THINGS or MACHINES
B. PEOPLE
C. IDEAS or THEORIES
D. DATA or RECORDS

51. An auto mechanic works mainly with—

A. THINGS or MACHINES
B. PEOPLE
C. IDEAS or THEORIES
D. DATA or RECORDS

52. A public relations worker works mainly with—

A. THINGS or MACHINES
B. PEOPLE
C. IDEAS or THEORIES
D. DATA or RECORDS

53. A commercial artist works mainly with—

A. THINGS or MACHINES
B. PEOPLE
C. IDEAS or THEORIES
D. DATA or RECORDS

54. A child care aide works mainly with—

A. THINGS or MACHINES
B. PEOPLE
C. IDEAS or THEORIES
D. DATA or RECORDS

55. A grocery checkout clerk works mainly with—

A. THINGS or MACHINES
B. PEOPLE
C. IDEAS or THEORIES
D. DATA or RECORDS

56. A fashion model works mainly with—

A. THINGS or MACHINES
B. PEOPLE
C. IDEAS or THEORIES
D. DATA or RECORDS

57. An ecologist works mainly with—

A. THINGS or MACHINES
B. PEOPLE
C. IDEAS or THEORIES
D. DATA or RECORDS

58. Which of the following jobs involves working mainly with both PEOPLE and DATA or RECORDS?

A. Elevator operator
B. Punch press operator
C. Wholesaler
D. Actor or actress

GO TO THE NEXT PAGE.

Directions for items 59-63: Choose the minimum type of training the following jobs usually require.

59. **WAITRESS—**

A. on-the-job training
B. four years of high school plus on-the-job training
C. apprenticeship
D. vocational school training

60. **FILE CLERK—**

A. on-the-job training
B. four years of high school plus on-the-job training
C. two years of community or technical college
D. four years of college

61. **COMPUTER PROGRAMMER—**

A. on-the-job training
B. two years of community or technical college
C. four years of college
D. apprenticeship

62. **JANITOR—**

A. on-the-job training
B. four years of high school plus on-the-job training
C. two years of community or technical college
D. apprenticeship

63. **TELEPHONE OPERATOR—**

A. on-the-job training
B. four years of high school plus on-the-job training
C. two years of community or technical college
D. four years of college

64. **Frank would like to be a hair stylist. Doing well in which one of the following high school courses would provide the best evidence that he would be successful in that job?**

A. physics
B. French
C. stenography
D. art

65. **Ted is studying to be a statistician. After he completes his training, in which one of the following businesses or organizations would he be least likely to seek employment?**

A. an insurance company
B. a university
C. a large city school system
D. a travel agency

66. **Mary took several business courses while in high school. English was her poorest subject. Her favorite outside activity was the Dramatic Club. She is a well-groomed, poised, and alert person who likes to be around people. She now holds one of the following jobs. Which one seems most likely?**

A. secretary
B. receptionist
C. stenographer
D. hotel maid

67. **Jean enjoyed her high school courses in art and mechanical drawing. She also enjoyed and did well in mathematics and science courses. Jean is now preparing for one of the following jobs. Which one seems most likely?**

A. drafting
B. retail sales
C. pharmacy
D. plastering

68. **Joe scores high on tests of mechanical ability. He is very skillful with his hands and has a sensitive touch. He has a great deal of patience and enjoys doing work others find tedious and frustrating. Joe recently dropped out of high school and is now preparing for one of the following jobs. Which one seems most likely?**

A. bricklayer
B. electrical engineer
C. accountant
D. watch repairman

GO TO THE NEXT PAGE.

69. Bill has artistic ability, a vivid imagination, and enjoys working with people. He received above average grades in high school and continued his education after graduation. Bill is now employed by a large, well-known department store where he holds one of the following jobs. Which one seems most likely?

A. shoe department manager
B. interior decorator
C. maintenance man
D. sales clerk

70. Jack has always been interested in helping others. He is friendly, outgoing, and a good listener. After graduating from college with above average grades, Jack served two years in the Peace Corps. He then took one of the following jobs. Which one seems most likely?

A. college professor
B. dental assistant
C. social caseworker
D. airline steward

71. Jane earned good grades in high school and college. She did quite well in science, especially zoology, which was her college major. Jane enjoys dealing with people and does not mind working long irregular hours. She is now in a professional school preparing for one of the following jobs. Which one seems most likely?

A. chemical engineer
B. lawyer
C. medical doctor
D. statistician

72. Sally got married right after high school. Her two children are now in school and the family is not well off financially. Sally is a bright, alert person who gets along well with people. She would like a job where she can talk to people and influence them. Which one of the following jobs seems to be the best possibility for Sally?

A. dental lab technician
B. real estate agent
C. market analyst
D. sociologist

STOP

That's all for this unit.

DO NOT GO TO THE NEXT PAGE UNTIL TOLD TO DO SO.

PREFERRED JOB CHARACTERISTICS
(10 minutes)

Job Values (Questions 1, 2, and 3)

People find that different things are important to them in a job. The six statements below are examples of things that are important to many people.

A. Working with people I like (co-workers)
B. Being my own boss, doing the work as I want with nobody watching over me (independence)
C. Work that I enjoy doing, that is interesting to me (interest)
D. Having a steady job where I would not be fired (job security)
E. Being responsible for making decisions and for the work of other people (responsibility)
F. Being well paid for my work (pay)

1. **Pick out the statement above which describes what you feel would be most important to you on a job. On your answer sheet in unit 2, blacken the oval for question 1 (MOST IMPORTANT) containing the letter for that statement.**
2. **Next, pick out the statement above which describes what you feel would be second most important to you on a job. Blacken the oval beside question 2 (SECOND MOST IMPORTANT) containing the letter of that statement.**
3. **Pick out the statement above which describes what you feel would be least important to you on a job. Blacken the oval beside question 3 (LEAST IMPORTANT) containing the letter of that statement.**

Working Condition Preferences (Questions 4-7)

Each pair of descriptions listed below presents opposite kinds of conditions which workers experience on different jobs. The working conditions on the left are labeled Condition 1; those on the right are labeled Condition 2. You are to decide whether you prefer Condition 1 or Condition 2 and how strongly you prefer one or the other. Use the following answers and mark them on your answer sheet for questions 4, 5, 6, and 7.

A. I strongly prefer Condition 1
B. I prefer Condition 1
C. I prefer Condition 2
D. I strongly prefer Condition 2

	CONDITION 1	CONDITION 2
4.	Indoor work	Outdoor work
5.	Working with people	Working alone
6.	Working at a variety of tasks	Working at the same task
7.	Working with my hands or doing physical labor	Working at a desk with little physical activity

STOP

That's all for this unit.

DO NOT GO TO THE NEXT PAGE UNTIL TOLD TO DO SO.

CAREER PLANS
(10 minutes)

As you explore and plan your future, it will be helpful to think about how much education you would like to complete and what kinds of jobs you would like to have. The following questions will help you think about these things and, perhaps, suggest some possibilities you may want to explore.

1. What is the greatest amount of education you plan to complete during your life?

A. graduate from high school.
B. complete an apprenticeship program.
C. complet[illegible]ob training program in the military.
D. complete up to two years in a community college, junior college, or technical college.
E. complete up to two years in a private business, trade, or technical school.
F. complete three or more years of college.
G. something else.

2. (a) No doubt you already have some ideas of job choices in mind. On your answer sheet, print the name of the job that you are thinking about most, using the box marked "1st Job Choice."

(b) Look through the JOB FAMILY LIST on these two pages and find where your "1st Job Choice" fits best. On the answer sheet, mark the oval that contains the letter for that Job Family.

3. (a) Print the name of your second job choice in the box marked "2nd Job Choice" on your answer sheet.

(b) Find the JOB FAMILY where your "2nd Job Choice" fits best. Mark the letter for that JOB FAMILY on your answer sheet.

4. Students often change their minds about job choices. How sure are you that your "First Job Choice" will be the same in a year?

A. I am very sure.
B. I am fairly sure.
C. I am not sure at all.

JOB FAMILY LIST

BUSINESS SALES & MANAGEMENT
JOB CLUSTER

A. PROMOTION AND DIRECT CONTACT SALES
Public relations workers, fashion models, travel agents, sales workers who visit customers (for example—real estate brokers, insurance agents, wholesalers, office supplies sales workers)

B. MANAGEMENT AND PLANNING
Hotel, store, and company managers, bankers, executive secretaries, buyers, purchasing agents, small business owners

C. RETAIL SALES AND SERVICES
Sales workers in stores and shops, auto salespersons, retail sales workers

BUSINESS OPERATIONS
JOB CLUSTER

D. CLERICAL AND SECRETARIAL WORK
Typists, file clerks, mail clerks, office messengers, receptionists, secretaries

E. PAYING, RECEIVING, AND BOOKKEEPING
Bank tellers, accountants, payroll clerks, grocery check-out clerks, ticket sellers, cashiers, hotel clerks

F. OFFICE MACHINE OPERATION
Adding, billing, and bookkeeping machine operators, computer and data processing machine operators, telephone operators

G. STORAGE, DISPATCHING, AND DELIVERY
Shipping and receiving clerks, stock clerks, truck and airplane dispatchers, delivery truck drivers, cab drivers, mail carriers

GO TO THE NEXT PAGE.

TECHNOLOGIES & TRADES JOB CLUSTER

H. HUMAN SERVICES CRAFTS
Barbers, hairdressers, tailors, shoemakers, cooks, chefs, butchers, bakers

I. REPAIRING AND SERVICING HOME AND OFFICE EQUIPMENT
Repairing and servicing—TV sets, appliances, typewriters, telephones, heating systems, photo copiers

J. GROWING AND CARING FOR PLANTS/ANIMALS
Farmers, foresters, ranchers, gardeners, yard workers, groundskeepers, plant nursery workers, animal caretakers, pet shop attendants

K. CONSTRUCTION AND MAINTENANCE
Carpenters, electricians, painters, custodians (janitors), bricklayers, sheet metal workers, construction laborers, (buildings, roads, pipelines, etc.)

L. TRANSPORT EQUIPMENT OPERATION
Long haul truck and bus drivers, bulldozer operators, crane operators, forklift operators

M. MACHINE OPERATING, SERVICING, AND REPAIRING
Auto mechanics, machinists, printing press operators, sewing machine operators, service station attendants, laborers and machine operators in factories, mines, lumber camps, etc.

N. ENGINEERING AND OTHER APPLIED TECHNOLOGIES
(For science and medical technicians, see Job Families O and P.) Engineers and engineering technicians, draftsmen and draftswomen, pilots, surveyors, computer programmers

NATURAL, SOCIAL, & MEDICAL SCIENCES JOB CLUSTER

O. NATURAL SCIENCES AND MATHEMATICS
Biologists, chemists, lab technicians, physicists, geologists, statisticians, agricultural scientists, ecologists

P. MEDICINE AND MEDICAL TECHNOLOGIES
Dentists, doctors, veterinarians, medical technologists and lab workers, pharmacists, X-ray technicians, optometrists, dental hygienists, dietitians

Q. SOCIAL SCIENCES AND LEGAL SERVICES
Sociologists, lawyers, political scientists, historians, psychologists, home economists

CREATIVE & APPLIED ARTS JOB CLUSTER

R. CREATIVE ARTS
Authors, concert singers, musicians, actresses and actors, dancers, artists

S. APPLIED ARTS (VERBAL)
Reporters, technical writers, interpreters, newscasters, newswriters, ad copy writers

T. APPLIED ARTS (VISUAL)
Interior decorators, architects, commercial artists, photographers, fashion designers

U. POPULAR ENTERTAINMENT
Night club entertainers, popular singers and musicians, disc jockeys, circus performers

SOCIAL, HEALTH, & PERSONAL SERVICES JOB CLUSTER

V. EDUCATION AND SOCIAL SERVICES
Teachers*, counselors, social workers, librarians, athletic coaches, recreation workers, clergymen and clergywomen

W. NURSING AND HUMAN CARE
Child care aides, nurses, dental assistants, physical therapists, hospital attendants

X. PERSONAL AND HOUSEHOLD SERVICES
Waiters and waitresses, airline stewardesses and stewards, housekeepers, porters, car hops, butlers and maids

Y. LAW ENFORCEMENT AND PROTECTIVE SERVICES
Police officers; building, food, and postal inspectors; watchmen; plant guards; firefighters

*NOTE—**Teachers:** Students thinking about high school or college teaching should consider whether their main goal is *teaching students* (mark Job Family V) or *doing work or research in the subject area:* for example—chemistry, (mark Job Family O), art (mark R or T), economics (mark Q), etc.

UNCERTAIN ABOUT WHERE YOUR JOB CHOICES FIT?

There will be many job titles that you can't find in the Job Family List. So look until you find a Job Family with "relatives" (similar jobs) and mark its letter on your answer sheet. *Special problems:*

MILITARY: If military service is one of your job choices, select a specific job (such as mechanic, nurse, bookkeeper, etc.) that you would prefer to do while in the military. Mark the Job Family for it on your answer sheet.

HOMEMAKERS: While being a homemaker is often a full-time job, many homemakers work outside of the home. So, those of you who wrote down homemaker should, instead, mark job choices outside of the home.

PROFESSIONAL ATHLETES: Those of you considering professional sports should mark job choices you would consider *after* your sports career is completed.

STOP

That's all for this unit.

DO NOT GO TO THE NEXT PAGE UNTIL TOLD TO DO SO.

CAREER PLANNING ACTIVITIES
(20 minutes)

PART A

Directions: There is a lot involved in making career (educational and job) plans. By seeing what you have already done about planning, we may be able to suggest other useful things for you to do. For this reason, we would like you to indicate how often you have done each activity listed below. Use the following responses for each activity.

A. No, I haven't done this OR the time I spent on this is not worth noting.
B. Yes, I have done this but only once or twice.
C. Yes, I have done this several times.

YOU MAY BEGIN.

1. **Listened to a tape recording or saw slides, a movie, or a TV program about a job in which I was interested.**
2. **Discussed, in class, jobs related to the subject we were studying.**
3. **Talked with an adult (not in my family) about how he (she) came to be in his (her) job.**
4. **Compared two different jobs in terms of how satisfied I would be with them.**
5. **Read a job description from the school library or guidance office job files.**

Talked (alone or in a group) with a counselor or teacher about—

6. **How my goals, interests, and abilities might relate to different kinds of jobs.**
7. **How jobs differ with respect to working conditions and fringe benefits.**
8. **How jobs differ with respect to rewards and satisfactions.**
9. **Education or job training after high school.**
10. **Financing education or job training after high school.**

11. **Wrote for materials describing jobs or educational programs.**
12. **Took a tour through a local industry, business, hospital, or office to observe what the various jobs were like.**
13. **Watched and talked with workers in jobs related to a school subject we were studying.**
14. **Attended a "job fair" or "career day" where workers or employers talked about jobs.**
15. **Took up a hobby or joined a group or club that was related to a job I was considering.**

16. **Played a game or did an assignment in school in which I had to make education or work plans for some student.**
17. **Took a course in school that studied several different types of jobs.**
18. **Took a course in school to find out what jobs related to it would be like.**
19. **Worked in a summer or part-time job related to an occupation I was considering.**
20. **Took part in an actual or a practice job interview.**

21. **Filled out a job application form, for an actual job or for practice.**
22. **Wrote a resume or summary sheet describing my job qualifications, education, work experience, etc.**
23. **Enrolled in (or plan to take) high school courses that will prepare me for a specific job after high school or for additional education.**
24. **Thought about whether I should obtain some additional education or job skills after high school.**
25. **Worked out a plan that will provide enough money for me to begin to do what I plan to do after high school.**

GO TO THE NEXT PAGE.

Directions: A few minutes ago, you were asked to print the names of your first two job choices on the answer sheet. The rest of the questions on this page all refer to these two jobs. THINK ONLY OF THESE TWO JOBS as you answer each of the following items.

Show how often you have done each of the activities in items 26 through 32 using the following responses:

A. No, I haven't done this OR the time I spent on this is not worth noting.
B. Yes, I have done this but only once or twice.
C. Yes, I have done this several times.

26. Discussed the jobs with a parent, relative, or guardian.

27. Listened to tape recordings or saw slides, a TV program, or a movie about the jobs.

28. Talked with a counselor or teacher about how my goals, interests, and abilities relate to the jobs.

29. Talked with workers in the jobs about how they came to be in the job.

30. Compared how satisfied I would be with each of the jobs.

31. Identified the school courses that it would be helpful to take for each of the jobs.

32. Took a school course related to one of these jobs.

33. Have you given much thought as to why these two jobs are "right" for you?

A. A little
B. Some
C. A lot

34. Is the amount of education you are planning in line with what is needed for the jobs?

A. Yes
B. Not sure
C. Probably not

35. Will the two jobs help you obtain what you want out of life?

A. Yes
B. Not sure
C. Probably not

36. How sure are you of the steps to take in order to prepare for and enter each of the two jobs?

A. Don't know where to begin
B. Have some idea of how to go about it
C. The steps are pretty clear
D. The steps are quite clear

37. Do you feel you will be able to complete all of the necessary steps for at least one of the jobs?

A. Yes
B. Not sure
C. Probably not

38. Would you say that your job future is—

A. Bright?
B. Dark?
C. Uncertain?

BEGIN RIGHT AWAY ON THE ITEMS IN THE NEXT GROUP.

PART B: REACTIONS TO CAREER PLANNING ACTIVITIES

Directions for the next 5 items: Some of the ways schools help students with career planning are listed below. For each, show how you feel about the help provided at your school. Use these responses.

A. Help not provided or not used.
B. This was of little help.
C. This was of some help.
D. This was a lot of help.

39. **File of job descriptions, pamphlets, or books on jobs. (Usually in library or a guidance office.)**

40. **Films on jobs, talks by workers (in person or on tape), "career days," tours.**

41. **Class discussion by teachers of jobs related to the subjects they are teaching.**

42. **Discussion with a counselor about education and job plans for after high school.**

43. **Meetings with small groups of students to discuss what we want from a job, educational plans, job plans, etc.**

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44. **Overall, how much help with career (educational and job) planning has your school (teachers, counselors, principal, librarian, etc.) given you?**

A. None
B. Little
C. Some
D. A lot

45. **Do you feel that you can get to see a guidance counselor when you want to or need to?**

A. Hardly ever
B. Usually
C. Almost always
D. We don't have a guidance counselor

PART C: "HELP WANTED" CHECK LIST

Directions: The list below covers several things with which students sometimes would like help. If you would like help with any of these things, mark A for YES. Otherwise mark B for NO.

A. YES
B. NO

46. **Improving my study skills.**

47. **Improving my reading skills.**

48. **Improving my math skills.**

49. **Choosing courses.**

50. **Discussing personal things that are concerning me.**

51. **Discussing a health problem that is concerning me.**

52. **Making career plans.**

53. **Obtaining money to continue my education after high school.**

54. **Finding after-school or summer work.**

Your responses to these items will be relayed to the school guidance director or principal when your score report is returned in a few weeks. You may wish to begin discussing some of these things before then.

STOP

That's all for this unit.

DO NOT GO TO THE NEXT PAGE UNTIL TOLD TO DO SO.

CAREER PLANNING KNOWLEDGE
(20 minutes)

This unit covers some of the things that may be helpful to know when you are making "career plans." By "CAREER PLANS" we mean plans for your EDUCATIONAL AND JOB future. Please remember this as you answer the questions that follow.

Choose the one best answer to each question. If you are not sure of an answer, make your best guess. The first group of questions should be answered "T" for TRUE or MOSTLY TRUE and "F" for FALSE or MOSTLY FALSE. Mark your answers in **unit 5** of your answer sheet. If you work steadily, you should be able to answer almost all of the questions in 20 minutes.

STOP **DO NOT GO TO THE NEXT PAGE UNTIL TOLD TO DO SO.**

CAREER PLANNING KNOWLEDGE
(20 minutes)

Mark your answers on the answer sheet.

T = TRUE or MOSTLY TRUE
F = FALSE or MOSTLY FALSE

1. Good career planning involves looking into several different occupations.

2. Except for the income it provides, a person's job has little influence on his or her way of life.

3. Most people do not need to begin career planning until their final year in high school.

4. There is only one "right job" for a person in terms of his or her abilities.

5. There is little one can do to get ready to choose a job except to see what's available when the time comes to choose.

6. The average American adult spends more waking time in work-related activities (including homemaking) than any other activity.

7. Two persons with the same interests and abilities could be satisfied with jobs that are different.

8. The State Employment Service Office provides free information about job openings and job training programs.

9. Apprentices are paid while they learn.

10. Less than one-third of the students graduating from high school finish a four-year college program.

11. Programs at two-year community colleges are limited to students who want to transfer to four-year colleges.

12. Less than one-third of all job openings require a college degree.

13. The English and Math skills of first-year college students are about the same from one college to another.

14. The unemployment rate of 20-year-olds in the labor market is usually less than the rate for other adults.

15. Few women work outside of the home after marriage.

16. Entering an occupation is the only way you can learn whether you might like it.

17. Most adults know by the end of high school which occupation they will be in when they are 40.

18. Most persons remain in the same job throughout their adult lives.

19. Jobs of equal benefit to the community have the same social standing.

20. The earlier one chooses his or her life's work the better.

21. Most people have the ability to do well in any job if they set their minds to it.

22. The typical man will hold more than four different full-time jobs during his lifetime.

GO ON TO THE NEXT PAGE.

Directions for questions 23-27:
Each of the following is important in making career plans: goals and values; abilities; interests; and the job market. In the next five questions, pick the one that is the most important to consider in answering the question.

23. What kinds of jobs have duties I might like?

(Find the choice below that is most important to consider in answering this question.)

A. goals and values
B. abilities
C. interests
D. the job market

24. What is important for me in a job?

A. goals and values
B. abilities
C. interests
D. the job market

25. Would I be able to learn the work?

A. goals and values
B. abilities
C. interests
D. the job market

26. Will I be able to find the job I have prepared for?

A. goals and values
B. abilities
C. interests
D. the job market

27. Would I be able to do the work?

A. goals and values
B. abilities
C. interests
D. the job market

Directions for questions 28-40:
Choose the one best answer–A, B, C, or D–for each of the questions that follows:

28. Which one of the following is the best way to begin career planning?

A. look at what is available on the job market
B. take tests to find out what you should do
C. consider what it is you want out of a job
D. read as many job descriptions as you can find

29. The *Occupational Outlook Handbook* gives information about all of the following except—

A. job entry requirements
B. average salaries in occupational fields
C. job openings in major cities
D. descriptions of job duties

30. Money for college may be provided by—

A. a scholarship or grant
B. a loan
C. a part-time job
D. any of the above

31. Which of the following is probably the best way for people to find out whether they would like the work of a carpenter?

A. ask a counselor
B. talk to a building contractor
C. take a shop course in woodworking or carpentry
D. read articles about the building industry

32. Choosing a job is similar to choosing a marriage partner in that—

A. there is little a person can do to prepare for either choice.
B. how a person feels about the choice is important in both cases.
C. there is only one right person and one right job for each of us.
D. both choices are final.

GO TO THE NEXT PAGE.

33. Ideally, which of the following should be most important in your career decisions?

A. what the job market is like
B. the decisions you have made before
C. what your parents did
D. what you want out of life

34. What will the labor force probably be like ten years from now?

A. Most jobs will require four or more years of college.
B. There will be fewer jobs for unskilled workers.
C. There will be more jobs for high school dropouts than there are now.
D. There will be fewer jobs for technical workers.

35. Which one of the following best describes women in the labor force?

A. More women are choosing to remain in the home rather than work.
B. A larger percent of women now hold "women's jobs" such as secretary and bank teller.
C. More women are working at jobs which were once thought to be "men's jobs."
D. Women now outnumber men on what used to be "men's jobs"; for example, drafting and law.

36. Bob is interested in so many jobs he cannot make up his mind. He should—

A. try out as many of the jobs as he can.
B. try one and if he likes it, stick with it.
C. find out what to do by taking an ability test.
D. find out more about what each job is like.

37. Paula is interested in a medical career as a psychiatrist but doesn't know much about what they do. What is the best step for her to take?

A. look up the job in a medical college catalog
B. make an appointment to see a psychiatrist
C. look up "psychiatrist" in the dictionary
D. get descriptions of the job from the school guidance office or library

38. Alice has been accepted by two colleges. College A is better known than College B but its costs are higher. She cannot make a choice. What is the best thing for her to do?

A choose College B because it will cost less
B. choose College A and write to the financial aid office there for information
C. make a list of what she expects to get out of college and compare the two schools that way
D. ask her parents to decide since they pay the bills

39. John's high school grades are good, and he would like to be an engineer. No one in his family went to college. His parents are against his going to college. What should he do?

A. see if his parents will agree to his taking a two-year program in a community college
B. see his counselor about getting financial aid so he can go to an engineering college without the help of his parents
C. arrange a meeting with his guidance counselor and his parents to talk over the whole program
D. join the army and train for engineering there

40. Bill cannot decide between engineering and auto mechanics. However, he must decide soon or it will be too late to prepare for either. What is the best thing for him to do?

A. get some part-time work experience in each
B. get a job at a garage, and if he doesn't like it, go into engineering
C. discuss his goals and his abilities for each job with the school counselor
D. work his way through engineering college as a mechanic

That's all for this unit.

STOP DO NOT GO TO THE NEXT PAGE UNTIL TOLD TO DO SO.

EXPLORATORY JOB EXPERIENCES
(20 minutes)

Directions: People often develop special skills or have career-related experiences outside of the usual classroom setting. Often these skills and experiences provide clues for suggesting jobs that you might think about and explore. For this reason, we would like you to indicate in **unit 6** on your answer sheet how often you have done each activity listed below. Use the following responses.

A. No, I haven't done this OR the time I spent on this is not worth noting.
B. Yes, I have done this but only once or twice.
C. Yes, I have done this several times.

YOU MAY BEGIN.

1. Studied different groups of stars on my own.
2. Played a musical instrument for a group.
3. Worked actively in a service group or as a volunteer aide.
4. Sold something through an ad in the paper.
5. Operated office machines such as adding or duplicating machines.

6. Used a voltmeter, micrometer, or pressure gauge.
7. Studied the theory of evolution on my own.
8. Sang in a choir or chorus.
9. Helped supervise summer playground activities for children.
10. Loaned someone some money and got it back with interest.

11. Filed letters, bills, or papers.
12. Repaired furniture.
13. Used a microscope outside of a class assignment.
14. Sketched people so they could be recognized.
15. Helped settle an argument between two friends.

16. Served as a school crossing guard, hall, study hall, or lunchroom monitor.
17. Typed letters or reports, not assigned in class.
18. Repaired a toy that wouldn't work.
19. Visited a science, natural history, or historical museum.
20. Wrote a short story or poem outside of a class assignment.

21. Instructed others in a sport such as bowling, swimming, tumbling, pool, hockey, basketball.
22. Had a regular paying job outside of my home (for example, paper route, baby-sitting, shoe shining, lawn mowing, car washing).
23. Sorted mail.
24. Fixed mechanical things around home.
25. Prepared a project for a science fair.

26. Played or sang in a band, combo, or rock group.
27. Took care of sick or elderly people.
28. Organized a club, "gang," school group, or team.
29. Worked out my own budget.
30. Replaced burned-out electrical fuses.

31. Wrote a science essay or report that was not assigned in class.
32. Wrote stories or news articles for a school newspaper or magazine.
33. Helped teach games or sports to young children.
34. Sold things like magazines, candy, Christmas cards, door to door.
35. Kept accurate records of my own expenses.

36. Spliced an electrical cord.
37. Did a science experiment that was not assigned in class.
38. Drew cartoons or comic strips.
39. Helped a new boy or girl in the neighborhood to get to know others.
40. Ran for a school or club office.

41. Checked for spelling errors in a theme or report.
42. Read magazines such as *Outdoor Life, Mechanics Illustrated, Popular Science,* or *Popular Mechanics.*
43. Read books or magazines on science and technology.
44. Read books on art or music that were not assigned in class.
45. Was selected by a group to buy a gift for someone like a friend, teacher, or club leader.

46. Sold tickets for activities like a play, sports event, or fun night.
47. Kept records of temperature, barometric pressure, or rainfall.
48. Helped change a part on a car engine.

GO TO THE NEXT PAGE.

49. Listened to "Meet the Press"on radio or TV.
50. Learned handicrafts such as carving wood, weaving, making jewelry or pottery, tooling leather, stringing beads, etc.

51. Worked on a neighborhood improvement project or charity drive.
52. Earned some of my school expenses through my own work.
53. Did lettering or drafting other than a class assignment.
54. Refinished, painted, or stained furniture.
55. Studied different cloud formations.

56. Had a speaking part in a play.
57. Helped friends with their problems.
58. Worked as an usher at school events.
59. Developed a system for sorting or storing things.
60. Changed a car or bike tire.

61. Read the editorial page of a Sunday newspaper.
62. Visited an art museum.
63. Gave first aid to an injured person.
64. Kept records of expenses for a club or group.
65. Planned a trip using a bus, train, or airplane schedule.

66. Took apart a machine to see how it operates.
67. Did a chemistry experiment outside of class.
68. Attended a symphony or rock concert.
69. Planned a school or church social event.
70. Promoted a money-making event in school.

71. Figured postage costs for a catalog order.
72. Developed pictures on my own.
73. Collected and studied things like rocks, shells, insects.
74. Performed in a variety show or skit.
75. Worked for a "cause" like fire prevention, ecology, or safety.

76. Helped sell things at a garage sale or bake sale.
77. Worked in a school with lunch tickets, filing, or sorting books.
78. Operated a movie projector, tape recorder, or loud speaker system.
79. Made a report or chart about parts of the body.
80. Did the art work or lettering for a greeting card.

81. Helped in a puppet show or play for children.
82. Encouraged people to join a club, team, or "gang."
83. Made charts to explain things like costs, rate of growth, population changes.
84. Made drawings to scale.
85. Studied (outside of a class assignment) diseases of humans, animals, or plants.

86. Drew or made designs for such things as clothing, buildings, or cars.
87. Visited older persons to cheer them up.
88. Handed out things like advertising circulars, political leaflets, and notices.
89. Took attendance or kept records for a teacher.
90. Raised animals to be sold.

STOP

That's all for this unit.

DO NOT GO TO THE NEXT UNIT UNTIL TOLD TO DO SO.

LOCAL ITEMS

Your school may wish to ask you about some things not covered in the units you have finished. If so, the questions will be handed out on specially printed sheets along with the directions for answering them. You are to mark your answers in the **unit 7** section of your answer sheet.

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Appendix H (Career Maturity Inventory)

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Appendix I

CAREER EDUCATION WORKSHOP
Participant Questionnaire

Grade Level/Subjects taught ______________________________

Highly Significant	Moderately Significant	Not Significant	(Place an "X" in the appropriate column)
____	____	____	A. Did the workshop increase your awareness regarding the overall regional plan to implement career education in local schools?
____	____	____	B. Did you become more knowledgeable concerning the methods by which a career education program might be implemented in your school?
____	____	____	C. How beneficial do you rate the workshop?

Open-ended questions. Please elaborate.

D. What suggestions would you offer concerning improving the workshop?

E. What do you view as strengths of the workshop?

F. What is your overall rating of the workshop? (Please circle one)

Excellent Good Average Fair Poor

G. If you care to provide additional comments concerning the workshop and the regional career education plan, please do so below.

Teacher Responses to Career Education Developer Questionnaire

No. Question	Multiple Responses
13. As a result of your experiences in this project do you possess different ideas, persuasions, and viewpoints about career education? If so, please list some examples.	
Elementary	
Career education has a definite role in our curriculum. The child now has become aware of not only what their parents do, but also people who work in their communities. A broader range of work other than police, fire, postal, etc.	
Career education can be effectively integrated with other subject areas in the curriculum.	(6)
It is now easier for me to relate daily teaching situations to the career concept of "what is work."	
I always thought we taught career education but never to such a depth.	
I think small children can become significantly involved in careers and understand the meaning of work, careers, and the variety of choices.	
Schema or the mechanics of present career education system is failing--too difficult to get and use. Good concept.	
Super important concept! Should be the key to all teaching!	
It has increased my awareness of activities, materials, ideas for projects, student's needs, and career choices.	(7)
Junior-Senior High	
I feel that career education can effectively be incorporated in all areas of the curriculum.	(3)
I am much more aware of career education in my daily teaching. I feel an increased responsibility in this area.	(3)
Student interest at some grade levels is very high.	

No.	Question	Multiple Responses
	I know it can be given in small enough doses to keep interest high in students. Does not have to be a concentrated unit.	
	Career education is valuable, useful, and applicable to high school students.	(7)
	It seems to me that this can be easily integrated into a regular class without stopping programs but adding to them.	(4)
	Career education should be developmental: exploratory stage through refinement. Career education does not have to be a series of enrichment exercises, but rather, a viable part of one's discipline of instruction.	
	Career education should be implemented whenever possible in the public school system.	(5)
	I feel that students need to know a lot more about careers sooner in their lives and that it is the school's responsibility.	
	More aware of various types of activities and also problems in developing a project.	(2)
	Practical application of a problem is one of the quickest ways to stress a point or get an idea started.	
	Although my basic opinion of career education has not changed, I have learned many fresh new approaches to it.	
	Some of the study areas should be lumped together: commercial art, graphics, and distributive education.	
	Quality is lost with relating activities to people, data, things--visual-verbal. Visual-verbal would be more applicable.	
	Career education is a concept or an attitude toward the learning process and the learning process and the creation of meaningful class activities or individual projects.	
	The units provide different ways to cope with content and different student and teacher interests.	(2)

No. Question — Multiple Responses

14. As a result of your experiences in this project are you more aware of problems and potentials of career education as this relates specifically to your own school and classroom? If so, what kind of problems?

Elementary

Yes, I have found that children are really not aware of the jobs that people do. They know people work, but they are not aware of the jobs they perform and why. (5)

Potentials--critical thinking. Problem--getting others to see the simplicity.

I realize now it can be related to all subject areas and doesn't need to be taught as a separate unit. It is still a problem to relate it to certain areas covered in 6th grade such as Mexico and Latin America. (5)

Time needed. I also felt closer to my children and felt that I got to know them and their problems better. (2)

Classes are too large and sometimes can't get the material when I want.

Being able to have individual print-outs for small children.

Junior-Senior High

Some problems may arise with some resources being unavailable to the classroom teacher. (4)

We will need some job description reference books in the classroom to facilitate these activities.

Getting teachers interested in working with career education in their classrooms. (4)

Location of resources. It has made me aware that there is a great many unused resources that are available to use. Problems however arise when students are asked to leave the school premises to find out about career information. (7)

Trying and providing activities for all individual students needs and interest. (2)

It will be different to initiate this at first if you have never used career evaluations before. (2)

No. Question | Multiple Responses

There is a lack of interest in mathematics and career education may just turn this around. Increase interest of student motivation factors. (4)

I find it difficult to write activities in certain categories that relate to my field. (2)

Our school is concerned with teaching content only; the classroom teacher is not concerned with career education as such. This project will eliminate this problem since it is designed for the content area. (3)

After working in the program, I found myself being more career oriented in the classroom. (2)

At ninth and sometimes even tenth grade level the students don't know what they want to do. Consequently they may choose a career rather haphazardly and then not be satisfied with it. (2)

The student becomes too specialized too quickly and is limited in scope.

We are introducing two new programs on knowing yourself and career education in the 7th grade.

15. As a result of this experience do you anticipate your classroom methodology will be altered? If so, please describe.

Elementary

Since I am more aware of how to use the program, I will try more of the unit material and suggested activities, not only as a career unit, but also in my regular classroom teaching of other subjects. (8)

In planning the 1976-77 school curriculum I will recommend that career education be considered in the development of new curriculum.

Career education awareness will be integrated within the regular classroom curriculum. (6)

I want the children to broaden their scope of the world of work.

I hope for well-planned units next year.

No. Question	Multiple Responses
Careful use of the terms "work" and "play" and development of the two concepts.	
Activities keep the children busier and happier.	
I don't feel you can work kindergarten children effectively on an individual basis. Some yes, but not to the degree this project would like.	
Junior-Senior High	
I think I will be more willing to use career education in conjunction with my course of study.	(3)
Next year I will attempt to implement the activities developed in this program into our Career Education Unit.	
We set aside some time in class for discussion of career opportunities.	(2)
I may use more of the material to help create interest in materials students usually find dull.	
Knowing that it is up to me to initiate any career education in my school, I will begin units in my own curriculum planning.	
Less room structured.	
I already incorporate this method in my teaching.	(7)
I may implement career education, but not using these units. Also I plan to incorporate math projects of my own design relating career education.	(2)
Definitely! After my first experience in writing, a great potential in the classroom was realized. At a time when classes need "proof" of relevancy, career education offers a concept which can achieve this proof!	
Yes, creation of content activities related to student career interest is a manner of education which is of tremendous potential.	(2)
I will incorporate program in health occupational areas when student indicates interest.	
Correlating present curriculum to careers.	

No. Question — Multiple Responses

16. As a result of this experience are you more willing to work with others to solve other instructional problems? If so, what type of instructional problem?

Elementary

Any! I try to do this anyway. It is very essential to education. (3)

Grouping, grading, and individualization.

How to make better use of independent study time, finding library materials for small children to use.

Need to share visual aids.

I would like to work more in team planning in an inter-grade situation in relation to career education, i.e. with 1st and 3rd grade extensively and also working to a lesser degree to K, 4th, 5th, and 6th. Even working to a small degree 7-12. (2)

I would be happy to work and develop the career education program in our school district.

Development of the unit into the classroom. Presentation of the unit as a working part of their daily lessons. (3)

Helps you try to keep learning interesting and meaningful as well as somewhat structured. Ideas I find here, I also use in my classroom. (3)

Curriculum planning. (2)

I'd like to think I've had many experiences working with others on instructional problems, however I feel this experience has added greatly to my experiences. Right now, I'm looking forward to working with others on a gifted program for our district.

Junior-Senior High

Other areas that deal with the actual preparation of students into our society. Example curriculum change in social studies: government, economics, social, American History.

Interdisciplinary.

No.	Question	Multiple Responses
	Curriculum coordination and development K-12 and metrication.	(2)
	In whatever I feel and my associates feel I could be of help. Hard to be specific here.	(2)
	I have always been willing to help.	(7)
	I am already doing this. The unit didn't change this.	(2)
	I could help anyone who has difficulty implementing this or another career-related program.	
	Doing these activities has made me aware of my own limitations as a teacher and I have been encouraged to work with other teachers in developing fresh ideas and approaches.	(3)
	Most problems with ninth grade particularly result from irrelevance of material or lack of "hands on" activities.	(4)
	Discussions have centered around use of career education concept in our own social studies department. Even discussions with math people have proved beneficial in their solutions to problems in their classroom. Career education can really bring meaning to a General Math class.	(2)
	I have worked on several projects and am convinced of their usefulness.	
	Working with "special students" (remedial and gifted).	
	Convincing instructors of the worth of career education.	
	Not yet, because many other instructors will not fully accept career education.	
	Depends on the problem and its proposed solution.	
	More interest generated by both teachers and students in the classroom.	
	For students who are more interested in money and career than individualized subjects taught in school.	
	Making program valuable--controlling size of groups and/or classes.	
	It would seem that in a career oriented school, our vocational choices should be more selective.	
17.	In your opinion, in building the resource unit, was concern given for individual pupil differences and growth? To what degree?	

No. Question | Multiple Responses

Elementary

High degree. We tried to place ourselves in the student's place. We changed many times (our activities) in that concern was given to those students who were slow--could they do this activity and motivation, average and high, could they not only do it, but would it be challenging and motivating for these students. (10)

Great degree of individual needs should and are being met--if teachers would only understand and use the complex-oriented units, etc.

Students in K-3 should not be expected to deal with individual printouts. They should be group oriented, instead. (3)

Reading was geared to a particular level.

Not only cognitive domain but affective domain also, was considered in the activities.

I think individuality was stressed and this is one of my weak points. The child should be aware of more careers after more exposures.

Junior-Senior High

By grade and level (below average, average, above average, large group, small group). (2)

On a scale of 1-10 smallest to largest, I'd give a rating of 6.3.

Ability and job requirements.

This area I contend needs some additional attention. We have not had enough time as yet to develop adequate resources. Can these actually be used in various schools i.e. the resources we list here that relate to the activities we develop.

I think that this unit may be too specific for Junior High. We are writing about jobs which may change drastically in the next few years.

To the best of everyone's ability to contribute within the limits placed upon us.

Yes. Age, grade level, ability level and interest. (18)

Yes. According to reading ability, math ability, and future educational goals.

No. Question Multiple Responses

To the degree of making my job very difficult.

Differences, yes. Growth, no.

Yes, activities were written to each of the career clusters.

Yes. Differences were taken into consideration but I believe that too wide a range of differences and growth were considered. Not too many college bound students would be taking Basic Math although there may be a few exceptions. (2)

Yes. The basic format of the student request form as well as the structure of each individual activity certainly is proof that individual differences are being recognized to a great degree.

Using the achievement levels is a big help in dealing with individual differences.

No.

A wide variety of material was available for use in preparation.

Constant concern about the difficulty of the activity was evidenced by coworkers and supervisors. A choice of alternatives is presented to each and every student.

Within the structure provided by the VAULT Unit, as much as possible. The major problem with career education, as I see it, is that the job market has become so fluid with so many changing demands, that some form of general education which allows a person to quickly prepare for a variety of job skills is needed. How to provide this kind of education is, I believe, the major problem which must be faced by everyone in education at this time.

Appendix K

K-12 CAREER EDUCATION USER QUESTIONNAIRE

1975-76

The purpose of this questionnaire is to obtain information from the users of the K-12 Career Education Project. The following questions represent an effort to determine some professional feelings and opinions related to the project. Therefore, your answers should reflect to the fullest extent possible your professional opinions about the project. It is through your responses that the project will be able to be continually improved. Please return the completed form to the Career Education Office at the Northwest Tri-County Intermediate Unit.

NAME____ DATE_____________________

PRESENT POSITION_______________________________ LOCATION_____________________

WHICH OF THE UNITS DID YOU USE?____

AT WHAT GRADE LEVEL WAS IT USED?____

DID YOU ONLY USE THE TEACHER PRE-PLANNING PRINT-OUT___________________________

PLEASE ANSWER THE FOLLOWING QUESTIONS BY CHECKING THE YES OR NO BLANK

You are encouraged to elaborate on your answers in the space provided.

	YES	NO
1. In your opinion was this unit oriented toward career awareness, exploration or preparation for your students?	___	___
2. Were you given sufficient information and guidance prior to using and during the use of the units? If no, please explain.	___	___

	YES	NO
3. Would you consider a laboratory, demonstration class, or other in-service training of value in helping you to learn how to implement units? Please explain.	___	___
4. Do you possess different ideas, persuasions, and viewpoints about career education and its processes since your experiment with the guide and unit? Please explain.	___	___
5. Are you more aware of problems in education and career education specifically in your own school and classroom as a result of using the guide? If yes, please explain.	___	___
6. Did you select and request individual student print-outs? If so, how many? If not, why?	___	___
7. In your print-out for individual students, were the number of suggestions relating to content, activities, materials, and measuring devices sufficient? If no, please explain.	___	___
8. Did you experience difficulty in obtaining the materials listed in the unit? If yes, please explain.	___	___
9. If you did not use individual student print-outs, did you find the pre-planning guide helpful? If so, in what way?	___	___

	YES	**NO**
10. Are you planning to use this career unit again?	___	___
11. Would you like to use other career units designed within this format?	___	___

12. In your opinion, what are the strong points of these units as they relate to career education?

13. In your opinion, what aspects of this career unit should be altered or improved?

14. How do you feel the children reacted to the materials and methodology of this unit? Describe briefly.

15. How might you incorporate career education concepts into your classroom in the future in addition to the computer unit approach?

16. Since this is a project funded by the U.S. Office of Education the following statistical data is a requirement for compliance.

Please place the number of participants who were directly involved in the project in the appropriate box.

RACE/ETHNICITY*	HANDICAPPED	GIFTED & TALENTED	LOW INCOME	MALE	FEMALE
American Indian or Alaskan Native					
Asian or Pacific Islander					
Black/Negro					
Caucasion/White					
Hispanic					
TOTAL					

*DEFINITIONS

American Indian or Alaskan Native: A person having origins in any of the original peoples of the Western Hemisphere.

Asian or Pacific Islander: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Pacific Islands. This area includes, for example, Burma, China, Mongolia, Japan, Korea, the Philippine Islands, and Samoa.

Black/Negro: A person having origins in any of the black racial groups of Africa (excluding Hispanic).

Caucasian/White: A person having origins in any of the original peoples of Europe, North Africa, The Middle East, or the Indian subcontinent (excluding Hispanic).

Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

Handicapped: Mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired persons who by reason thereof require special education and related services. The term also includes persons with specific learning disabilities to the extent that such persons are health impaired persons who by reason thereof require special education and related services.

Mentally Gifted: Individuals whose potential is so high and whose level of mental development is so far advanced that they have been identified by professionally qualified personnel as needing additional educational opportunities beyond what is provided by the usual school program if they are to be educated to the level of their ability.

Talented: Individuals identified by professional qualified personnel as being capable of high performance in one or more areas of special competence. Among these areas of special competence are creativity; leadership ability and social adeptness; and facility in the productive and performing arts.

Low Income: Individuals residing in households classified as "low income" using Title I, Census, AFDC, or other appropriate defining conditions.

**These definitions are taken from: Student/Pupil Accounting: Standard Terminology and Guide for Managing Student Data in Elementary and Secondary Schools, Community/Junior Colleges, and Adult Education, State Educational Records and Reports Series: Handbook V, Revised, 1974, National Center for Education Statistics, U.S. Department of Health, Education and Welfare. The definition of "low income" is not taken from this source.

Teacher Responses to K-12 Career Education User Questionnaire

No. Question	Multiple Responses

1. In your opinion was this unit oriented toward career awareness, exploration or preparation for your students?

   Elementary

   Awareness and exploration to a great extent.

   Some information was out-dated.

   Junior - Senior High

   No comments.

2. Were you given sufficient information and guidance prior to using and during the use of the units? If no, please explain.

   Elementary

   I was given a great deal of information and guidance especially during the use of the units. The methods I used for teaching the units were more or less self-developed which took quite a bit of time. I feel it would have been a greater aid to me if I could have visited a classroom where the units had been used, or to have seen a video tape of the same.

   I attended the career guidance workshop.

   Was confused as to proper use and implementation. Hard to interpret the printouts.

   Yes, but the first unit was difficult in ordering procedures.

   Excellent guidance from the personnel at the Intermediate Unit (Barb W.)

   It was my first experience with a computer program and I thought I understood it well until it came time to request the unit and implement it. With help from I.M.S. we (another teacher and myself), finally got on the right track, but we lost precious time in doing so.

No. Question — Multiple Responses

Junior - Senior High

Information was given prior to using the unit, but none during its use.

Excellent.

No, but I didn't really search it out - perhaps this was my fault.

3. Would you consider a laboratory, demonstration class, or other in-service training of value in helping you to learn how to implement units? Please explain.

Elementary

I feel much of my time could have been better spent using the units if a demonstration or other training such as in-service had been available to me. I feel too much of my time was spent developing a method to implement the units into my curriculum. (5)

The activities can be followed just as they were written and do not need further explanation.

Printouts are very difficult to fully understand.

Already have.

Inducing proper attitudes would be better, as to actual simplicity.

This would be valuable especially sharing ideas with other teachers.

Junior - Senior High

Perhaps on how to better utilize the units.

At the present time this unit is of little additional value for a regular classroom teacher.

This is an excellent suggestion.

In-service training to show or have teachers compare notes on ways to implement unit and meet student's individual needs.

No. Question Multiple Responses

4. Do you possess different ideas, persuasions, and viewpoints about career education and its processes since your experiment with the guide and unit? Please explain.

Elementary

I feel that it is an essential part of a child's education and I find that career education can be implemented into all areas of the curriculum. (4)

I've always felt that it's important.

Career education is valuable and should be started when children are young and continued through high school.

I would like to see more clarification of the purpose of each unit.

I am making it more related to our present curriculum.

Some.

I am aware of many more opportunities that I have to discuss career awareness in the course of a school year.

Junior - Senior High

I've always been a strong believer in career education.

This unit depended too much on interviewing people about their use of banking which is quite difficult to do.

I was already sold on the idea prior to this year.

Gets students to express his views and interest along with conveying his math ability.

Irrelevant since I didn't use it.

5. Are you more aware of problems in education and career education specifically in your own school and classroom as a result of using the guide? If yes, please explain.

Elementary

Already was.

No. Question Multiple Responses

Elementary

I feel that now, in order for a child's education to be most meaningful there must be a continuous follow-up of all subject matter, including career education, from each grade level to the next. (2)

I would like to continue.

The main problem is finding time to incorporate career education into the total education program. Sometimes it works in well and sometimes it takes extra time and effort.

Junior - Senior High

Not enough material is available for career education.

More knowledgeable.

6. Did you select and request individual student printouts? If so, how many? If not, why?

Elementary

I think they would be great, but after using many of the activities suggested on the group print-outs (because there were many) the school year is almost over.

This year 74; last year, 28.

Enough for every child - 23.

25. At times I had children pick activities from teacher print-out.

22.

Too hard for first grade.

In the beginning I ordered individual printouts for all students. I felt that I could not manage a program using that much material, so in later units I ordered only 3 printouts for each unit in Reading. One for top student, one for average student, and one for low student. I then used the programs for groups instead of individual students. Three printouts were ordered for math as well.

No. Question | Multiple Responses

Elementary

I began to interview each student thinking I'd do career education as an individualized program without a total class introduction when my colleague and I found out it was not a good idea. So I dropped the interviews.

Junior - Senior High

15.

66.

20.

50 print-outs.

Do not teach classes.

Ran out of time.

In this, my first year as D.O. Coordinator, only general questions were used due to time factor.

Usually 1 print-out per student.

No, because preplanning resource guide did not fit my multi-level needs.

7. In your printout for individual students, were the number of suggestions relating to content, activities, materials, and measuring devices sufficient?

Elementary

In some units I had to write most of the activities that I used, along with another second grade teacher. They were a great help; however, in some cases out-dated or not applicable to my classroom teaching situation.

Were not ordered.

Junior - Senior High

In some cases, people did not have enough choices, however in most cases, they had plenty.

No. Question Multiple Responses

Junior - Senior High

Sometimes too many problems of the same context and activities.

8. Did you experience difficulty in obtaining the materials listed in the unit? If yes, please explain.

Elementary

Many of the books, filmstrips, etc., were located in a school in another school district that were impossible to obtain for practical purposes. Those listed at the I.U. were readily obtained and of great help in teaching career concepts. Material should be centrally located.

I had trouble at first trying to figure out exactly what should be done on the order form, but I received individual help from Steve Barrett.

First grade level is difficult because of readability.

Some, most of the time I had to settle for a later date.

Some filmstrips I ordered were not available when I wanted to use them.

Junior - Senior High

Many of the materials were not readily available.

I had most of this material before I ever heard of this service.

I anticipated considerable difficulty; therefore, this is one reason I didn't use it.

9. If you did not use individual student print-outs, did you find the preplanning guide helpful? If so, in what way?

Elementary

Pre-planning guides gave a great many suggestions in some units. I liked the information readily available such as the objectives, materials needed and sources. In other units the activities had to be adapted. Some units need revision. (2)

No. Question   Multiple Responses

Elementary

The suggestions were great! And there were so many to choose from.

Somewhat. A lot of the materials were difficult to obtain because of my personal curriculum time schedule. Hard to incorporate into daily plans because of resources unavailable or waiting time.

Did not use.

Many, many ideas and helpful hints. More important addresses which we could write or take field trips to.

Junior - Senior High

I did use individual student print-outs.

It was an additional idea book of sort of insurance.

Helped me to focus on the topic.

The pre-planning guide was helpful in that many useful ideas were incorporated into daily lessons.

It gave me one lesson to use. Most of my students were academic students, and those who looked at this didn't think it would fulfill their needs.

10. Are you planning to use this career unit again?

Elementary

No comments.

Junior - Senior High

No comments.

11. Would you like to use other career units designed within this format?

Elementary

No comments.

Junior - Senior High

No comments.

No. Question — Multiple Responses

12. In your opinion, what are the strong points of these units as they relate to career education?

Elementary

Many of the activities make learning more fun and interesting for the students. It is much easier for the teacher to teach career concepts when he has available to him these types of opportunities. These activities not only stress career awareness, but also emphasize concepts in every subject area. (4)

I think the children obtain the feeling of having a job in broadcasting or any other job. I like the real application.

Marine Science included interesting activities for the children, and many of the activities were original and easy to do.

Personal print-outs; good activities.

To give individual instruction; to give and help direct independent work. (2)

I'm not really familiar with all units, but the pre-planning unit of hospitality and recreation saved me preparation time. The program included a variety of ways to teach career education.

To help the students think in these terms. Many fields are available to me as interest areas, and I may find some new fields that I will want to read about or observe.

Awareness! My job was to make the students aware of the different jobs in the career clusters. These units gave me more than enough information and activities to make career education more enjoyable.

Junior - Senior High

The variety of experiences and the various requirements of the activities.

Give the students career oriented activities.

Pre-planning completed; saves teacher time.

No. Question | Multiple Responses

Junior-Senior High

Not only do these units give awareness of career education, they allow the student to work in the content areas.

I felt this unit on banking to be very weak. I was hoping to discover some new ideas to use but found only variations of my past teaching materials. There also was very, very little differentiation in student packets for individual abilities. It was too difficult for my slow students and too easy for my fast students.

I am impressed with the individualized print-outs which I have seen. Although I did not use them this year, I plan to next year.

Many avenues to take for individualization; due to the number of activities more students can find more meaningful work activities.

The diverse areas covered; the interesting activities of math unit.

I'm not sure.

No. Questions

Multiple
Responses

13. In your opinion, what aspects of this career unit should be altered or improved?

Elementary

I feel that in the lower primary grades it is impractical to give students individual print-outs. Many of them have difficulty reading some of the information and find it too confusing. Students have difficulty choosing an activity when they have so many to choose from. I feel it is impossible for a teacher to have available to his students all the resources, materials, supplies, and paraphenalia that all the activities require at one given time.

The ordering procedure and a basic understanding of the program is difficult. If a teacher is interested in developing a career education program, it would help if. . .

Having more projects written.

Include in the pre-planning unit a list of products obtained from the sea that they should become familiar with. More content information should be included.

Wording to children; less measuring devices (too many included); better explanation to teacher and child orientation lessons to explain units and uses; a management program-suggestions!!!

More visual aids should be available; more readability level of students.

Directions in print-outs or the activities were sometimes difficult to follow.

I just didn't do enough work on it to give a comment.

I would like to see more specific examples of activities. The listed activities were good, but general.

Up-to-date information, addresses, etc.

Junior-Senior High

Availability of materials-perhaps making unit and materials available to certain schools at rotating times.

A more detailed differentiation should be made for differing student ability. There should be less use of field trips as this is difficult to arrange in our system. (2)

Do away with some of the resources which are out-of-date.

Localized.

If it is possible to eliminate specific questions to make a slimmer package.

Not necessarily altered, but constant revision and up-grading the "caliber" of student activities within the existing units.

14. How do you feel the children reacted to the material and methodology of this unit? Describe briefly.

Elementary

When given individual print-outs students seem to become confused and the program seems unorganized because of lack of all suggested materials, and resources. When given print-outs as such Career Education seems to be a separate part of the curriculum and not integrated as it should be. When I used the program as I developed it for my teaching situation (Ind. Groups) it seemed to be less confusing and all materials and resources were made available to the students before hand. The activities were integrated with each subject area.

The children enjoyed most of the activities because they involved seeing and doing things of interest. They especially enjoyed field trips and group activities.

In my classes the children reacted very excitedly. Some had difficulty with the terms but felt better once they began working with their projects.

The children enjoyed the topic marine science and were interested in most of the activities.

They enjoyed the activities overall; print-outs confused them (perhaps because they confused the teacher).

Liked having their own print-out, but had difficulty organizing and reading the information.

Most reactions were favorable. As a group very well.

The children in 2nd grade seem to have a limited concept of work. They wanted to be policemen or teachers, etc. When we did one activity where they were to draw around each others body and color in the person who helps them to have fun, more than 50% drew the same person- Burger King Waiter. They didn't seem confident in themselves to think on their own.

They wanted to remind me of other vocations relevant to our social studies lessons.

Like it very much...they became involved. Really became interested in these units.

Junior-Senior High

Basically they worked well; however, some students because of trouble working independently, had trouble finding activities in their units.

Most of the children were motivated through the use of the computer print-out. Many were surprised at the career opportunties available to them.

They seemed unimpressed by its use.

More enthusiasm than for a regular unit of work.

Impressed with amount of information.

They liked it very much.

Some have hard time handling individual work. Majority welcome chance to explore an area of their own interest, also reinforces the importance of math to everyday life.

What they saw in preplanning they didn't like.

Computer print-out itself is a motivator; the concept that student interests and needs are being directly considered positively affects student reaction and attitude.

15. How might you incorporate career education concepts into your classroom in the future in addition to the computer unit approach?

Elementary

I would have my class watch T.V. program When You Grow Up as an introduction to the career cluster. A discussion could follow and other jobs in the cluster would be discussed. The career awareness pictures from Weekly Reader would be used for this. Field trips, in and around the school and around the community would be taken and resource persons from the community would be invited into the classroom to talk to students about their job, again to help the students become more aware of all the jobs in the job clusters. Group activities have already been written for most of the job clusters on individual mini-bulletin boards. These would be used again and would be expanded to cover more subject areas in the curriculum. Students will be encouraged to keep a folder showing at least one or two jobs from each job cluster. Career Education will be emphasized in all types of activities the students are involved in. Their Thanksgiving and Christmas stations as well as the class play will all be done in coordination with the students involvement in Career Education.

Many subjects lend themselves well to career guidance, such as social studies units (we study life in different regions of the world- how they live and work). We can also study careers through science activities. Some of the T.V. programs on Career Education are very good.

In kindergarten, these units could become a part of the language experiences program. Further collections of materials, such as hats, badges, and uniforms would be necessary.

We already do the following in 4th grade: filmstrips, unit studies, field trips, resource people, discussion, exploratory interviews, research papers, etc.

More awareness leads to more teacher comments on career education in the course of a day.

More expanding of an interest of a certain child and more use of parents.

Just as I have done in the past- I incorporate my ideas along with the print-outs.

I will probably try a computer unit again, but I also use everyday life-experiences, characters reading books, introduction of school workers, etc. Frankly, I think we use every chance we get to make children more aware of the world and its workers but we just don't take time to say, "Ah, this is my lesson on careers for the day."

Our reading system has many opportunties in level 9 and 10 for second grade where career awareness is mentioned in the stories. Our math series has limitless opportunities for use of C.A. in word problems, programmed games, talk cards, etc.

I've found that you really don't have to have a formal lesson to teach career education. It works better if you just discuss career ed. whenever it presents itself. Barb W. pointed out to me. For example the students are now planting gardens so we will discuss the life of a farmer. We will also get into construction which is a career cluster.

Junior-Senior High

Studies of various career opportunities and study skills require for job hunting (phone skills, letter writing, resumes).

You might use a type of program only one day a week to go along with the subject matter being covered.

At the present time career education is included in discussion when the topic comes up by itself.

Have more resource persons to speak to my class about careers.

English: I find it spilling over into language, writing, literature, etc. Ex.: I now have writing classes study letters which we write to prospective employers and then fill in applications, etc. The students are very interested in selecting potential occupations, etc.

No. Question | Multiple Responses

Junior - Senior High

We do unit of consumer individual taxes, pay schedules, etc. Then each student investigates his particular interest.

By direct correlation of daily class content and the world of work. Also, Unit Assignments tying together unit concepts and individual student career choices. On many occassions, I have personally created activities for my students using this approach. One not need the computer print-out to incorporate the concept of Career Education.

Appendix L

K-12 Career Education Administrator Questionnaire

1975-76

The purpose of this questionnaire is to obtain information from administrators in school districts where the Intermediate Unit #5 Career Education Project is being used. The following questions represent an effort to determine some professional feelings and opinions related to the project. It is through your responses that we will be able to continually improve the project. Please return the completed form to the Career Education Office at the Northwest Tri-County Intermediate Unit.

1. In your opinion, what is the status of Career Education in your school district? Please be specific.

2. Do you feel that you and your staff have been adequately informed as to the format and progress of the Intermediate Unit #5 Career Education Project that is available for use in your schools?

3. Do you feel that the Intermediate Unit's Career Education Program meets the needs of your school district's goals in Career Education? Please elaborate.

4. In your opinion, what are the strong points of this Career Education Program?

5. In your opinion, what areas of the Career Education Project should be altered or improved to meet your needs?

6. How do you react to the methodology incorporated into the project? Is it a workable approach to use in the classroom?

Administrator Responses to
K-12 Career Education Administrator Questionnaire

No, Question

1. In your opinion, what is the status of Career Education in your school district?

Comments

A few teachers are either using the material from I.U. or planning on using it next year. On the high school level we cover career education in groups.

Improving, but needs continued support.

Our district has developed a plan for next fall that meets the needs and desires of the teacher.

Four teachers tried to implement the program into the curriculum.

It is presently being used by several teachers for both remedial and supplemental work in their classes.

As such, we do not have a Career Education Program. At present we have nothing happening on a large scale.

The emphasis seems to be shifting away from career education.

Introductory career material is not presented until the Middle School grades. The high school offers a career planning course to 10th grades and students involved in the work experience program.

Very little is being done; a few courses and parts of courses are being offered.

Depends on the individual building and staff. But generally good.

Guidance personnel have been charged with the responsibility of Career Education in the school district. Several classroom teachers grade K-12 have assisted with the program.

Career Education in our district was emphasized a great deal in 1974-75 because of our Title III grant which enabled us to provide in-service training for teachers and establish a Career Resource Center. Teachers are still incorporating Career Education in the curriculum.

Comments

Career Education Guides are available to all teachers at all grade levels. These have been designed to be incorporated with SS curriculum and are being used when applicable.

Very strong. Had most of the rooms participate last year.

There is no central push but many teachers are incorporating some career education concepts in their lessons.

Teachers are using few I.U. prepared materials. There were samples of units given to teachers and they tried the ideas on the print-out.

As a teacher I can speak from my point of view that I have been informed of the progress of the program.

A program is developing on schedule.

Used to some advantage by several teachers.

The amount of emphasis is dependent on the teacher and/or department. It seems to be a hit and miss approach with some doing much and others doing very little or nothing. A lack of interest on the part of many staff members has limited the program.

2. Do you feel that you and your staff have been adequately informed as to the format and progress of the Intermediate Unit #5 Career Education project that is available to use in your schools?

Comments

Yes, informed, but not proficient in technique at this time.

Yes, through our sort of director.

I notified the faculty of the project and only four teachers showed an interest. A representative from the Intermediate Unit course talked with these teachers. He gave an adequate presentation, but I feel the teachers needed more contact throughout the year with the representative.

We have been informed as to the program of I.U. #5 and the staff has been very cooperative.

Yes, at two different times, I had an I.U. #5 person talk to the faculty at a scheduled meeting.

Comments

No! As I see it you are providing only resources and resource units. You have no program that this may apply to at least not one that I have seen. I believe you have put the cart before the horse. If this whole business had been done differently more districts will have something going right now. Step #1 should have been to have each district write a Career Education program based on its needs. Step #2 I.U. would assist providing resources-human and material-to help carry out each districts program.

Our staff was informed of the I.U. #5 Career Education Project at the in-service meetings which were conducted by the I.U. #5 Career Education staff last year. This year we did have individual teacher contacts made by the staff but not any general in-service meetings.

I believe I understand the method of operation. I believe I should schedule a session for the teachers.

As a teacher, it meets my teacher goals in developing career-oriented students. Helps in preparing them for high school and choice of subjects.

3. Do you feel that the Intermediate Unit's Career Education Program meets the needs of your school district's goals in Career Education?

Comments

For the present time, yes. As more teachers incorporate this in the curriculum more units will need to be added.

It helps and adds greatly to what we had been doing.

Not in the elementary; it was not presented to the classroom teacher in such a way that they would buy it.

Those teachers who did use the VAULT information were not enthusiastic about the resources listed in the print-out.

Yes, as far as it goes. There are some gaps, particularly at the junior high level. These resources serve as a springboard to further investigation, which is its primary purpose.

No! You don't have a program for a school to use only resource units. Before these are of any use a lot of curriculum work must take place.

Comments

Actually there is almost too much information for a teacher to shift through. Our emphasis is a unit on careers in Language Arts although I like the I.U.'s approach better.

Yes, we feel that the I.U.'s Career Education Program is well grounded and well prepared. Without the I.U. program, our district could not put one together as elaborate.

Our Career Education philosophy has been to infuse career education into the curriculum wherever possible and the I.U. #5 units give many suggestions on how to implement career education concepts.

Yes, the opportunity is open and there.

We have not made much of the Intermediate Unit's Career Education program and this could be because it does not meet the needs of our teachers.

As a teacher it meets my teacher goals in developing career oriented students. Helps in preparing them for high school choice of subjects.

Still experimental.

No, but it does meet many of our needs.

4. In your opinion, what are the strong points of this Career Education Program?

Comments

An abundance of materials; ease of obtaining the material; stimulates student's interest in jobs.

Good structure; easy to use once teacher gets on to the technique.

The VAULT program helps the teacher to individualize instruction and appeal to the individual interests of the class.

As I said before I can't see what you have as a program. Programs mean more than resource units.

The emphasis of relating careers to all subject areas is good.

Fits into the existing curriculum well. Objectives are what we believe they ought to be.

Ready access to information concerning careers for young men and women.

Comments

High interest on their level.

It is a cast source of materials and ideas.

I like the USOE clusters approach. It defines specific jobs and places them in handy compartments.

It is flexible and has been developed by teachers.

Availability of personnel and materials.

Any effort to relate to school and its curriculum to the present and future lives of the students makes learning more useful and more meaningful; increased motivation results.

Definite resource materials, relative to the students interests, progression at own speed, and termination of project as the student is no longer interested in any particular aspect.

5. In your opinion, what areas of the Career Education Project should be altered or improved to meet your needs?

Comments

More units developed.

Your program is not understood by most teachers.

Many of the resources need updating, and the resources should be more accessable.

There should be information on kits and units commercially prepared.

Because of some really good E.Q.A. scores on Career Education, we can't think of any necessary alterations.

More contact with I.U. #5 Career Education Project personnel would be desirable.

We felt that in the past two years those consultants sent to individual districts were not adequately prepared to answer all teacher's questions. Print-out revision.

Cooperating teachers have expressed the opinion that much of the material offered is obvious and should be eliminated.

Middle school programs.

Comments

Money should be earmarked for classroom projects such as films, kits, field trips to enlarge upon the career.

I feel the sole use of computer printouts limit the effectiveness of the program. While they provide resources for teachers, teachers are looking for more concrete materials and actual assistance in planning and implementing the activities in the classroom.

6. How do you react to the methodology incorporated into the project? Is it a workable approach to use in the classroom?

Comments

Perhaps more teacher education in setting up goals is needed. We found that using only communications as a goal greatly limited the activities suggested.

Activities involved too much interviewing of people for the Business Department. The project did not take into account the individual levels of ability.

Yes. It rests upon the teacher; however to present it properly, and if the teacher feels that it is just a matter of handing out forms, then it is all lost. The teacher should lead the interest parade.

We need a unit approach.

Again, this depends much on the classroom teacher and the individual staff. However, basically it is quite a workable approach.

Staff members who have attended meetings concerning career education projects have reacted negatively to the formal approach. At a time of decreasing enrollment it is imperative that materials be available which may become parts of regular classroom activity. Money is not available for additional teachers.

This approach is definitely workable, however the initial selection of units needs to be presented almost individually to teachers. The individualized approach is excellent. It is meaningful to the students and should have a definite influence on students' career choices and career awareness.

Again, it's the teachers opinion that the extensiveness of the printouts deters its use in the primary elementary classroom.

Comments

Concerned as to how much material is needed in our libraries.

Teachers have stated that much of the material is not usable. They feel much has been written to say very little. I believe the approach is correct, but refinement is necessary.

I use the Careers Program as an independent study, but I do incorporate the careers into any subject when the occasion arises or different work is mentioned. Especially in Social Studies where climate, landform and customs affect what the people do for their work.

Good methodology and can be learnable.

I like the format, I'm not sure about all the teachers.

Appendix M

ELEMENTARY UNIT DEVELOPED: "HEALTH OCCUPATIONS"

Curriculum Developers

Kindergarten Teachers

Name	District	Building	Spring* 1976	Summer* 1976
Ellen Richards	Girard	Elk Valley Elementary	X	
Carolyn Richard	Millcreek	Asbury Elementary	X	
Sylvia Conrad	Millcreek	Lakewood Elementary		X
Irma Watkins	Union City	Union City Elementary		X
Lila Staub	Titusville	Pleasantville Elementary		X
First Grade Teachers				
Elizabeth Swift	Girard	Elk Valley Elementary	X	
Bonnie Soltis	Northwestern	Northwestern Elementary	X	X
Lorraine Spearhouse	Conneaut	Schafer Elementary		X
Kathy Fennell	Gen. McLane	Edinboro Elementary		X
Second Grade Teachers				
Denise Finazzo	Millcreek	Asbury Elementary	X	X
Joseph Mineo	Millcreek	Asbury Elementary	X	X
Third Grade Teachers				
George Simko	Penncrest	Euclid Elementary	X	X
Liz Vardaro	Conneaut	Conneaut Valley Elementary	X	X
Virginia Ellis	Crawford Central	Kerrtown Elementary	X	X
Mary Werling	Girard	Elk Valley Elementary		X
Fourth Grade Teachers				
Emilie Hammermeister	Girard	Elk Valley Elementary	X	X
Cheryl Weigle	Millcreek	Chestnut Hill Elementary	X	X
Sharon Steele	Union City	Union City Elementary		X
Pam Lucas	Millcreek	Grandview Elementary	X	
Fifth Grade Teachers				
Terry Ruoff	Northwestern	West Springfield Elementary	X	X
James Holt	General McLane	General McLane Middle	X	X
Angelo Santoro	Penncrest	Cambridge Springs Elementary		X

Sixth Grade Teachers

Name	District	Building	Spring* 1976	Summer* 1976
Nancy Latronica	Penncrest	Cambridge Springs Elementary	X	X
Joseph Koczwara	Crawford Central	Cochranton Elementary	X	X
Carol Davis	Conneaut	Conneaut Valley Elementary		X

* Spring, 1976 - March 4, 1976 - June 10, 1976
(One three hour session per week)

Summer, 1976 - June 14, 1976 - June 30, 1976
(13 days, six hours per day)

JUNIOR HIGH UNIT DEVELOPED: "COMMUNICATION OCCUPATIONS"

Curriculum Developers

GRADES 7 - 8 - 9

Name	District	Building	Spring* 1976	Summer* 1976
Social Studies				
Tom Hargest	Ft. LeBoeuf	Middle School	X	X
Dave Cope	Titusville	Titusville Jr. High		X
Bill Stafford	Ft. LeBoeuf	Middle School		X
Ken Borland	Millcreek	Westlake Jr. High	X	
Language Arts				
Steve Chizmar	Girard	Rice Avenue Middle	X	X
Jack Power	North East	Junior High		X
Curt Magnuson	Girard	Rice Avenue Middle	X	X
Math				
Ruth Miller	Conneaut	Conneaut Lake Jr. High	X	X
Kathy McClosky	North East	Junior High		X
Carmen Catherman	Wattsburgh	Wattsburg Middle		X
Karen Galubik	Girard	Rice Avenue Middle	X	
Science				
Russ Lasher	Millcreek	J.S. Wilson Jr. High	X	X
Tom McClosky	Union City	Union City Jr. High	X	X
Karl Engleka	Titusville	Titusville Jr. High		X
Jim Potecki	Corry	Corry Jr. High	X	
Industrial Arts				
Winfred Decker	Fairview	Fairview Middle	X	X
Learning Disabilities				
Mary Jo Schirra	Girard	Rice Avenue Middle		X

* Spring, 1976 - March 4, 1976 - June 10, 1976
(One three hour session per week)

Summer, 1976 - June 14, 1976 - June 30, 1976
(13 days, six hours per day)

SENIOR HIGH CURRICULUM UNITS REVISED:
BASIC OPERATIONS, TALK, HOUSEHOLD SCIENCE, AMERICAN ELECTIONS

Curriculum Developers

GRADES 10 - 11 - 12

Name	District	Building	Summer* 1975	Summer* 1976
Social Studies				
Robert Sensor	Ft. LeBoeuf	Senior High		X
Rachel Johns	Crawford Central	Meadville Sr. High		X
Merle Darcangelo	Penncrest	Saegertown Sr. High		X
Dick Steinbrink	Ft. LeBoeuf	Senior High		X
Ray Smith	Crawford Central	Meadville Sr. High	X	X
John Daly	Penncrest	Maplewood Sr. High	X	X
Tom Moore	General McLane	Senior High		X
Jim Sisson	Girard	Senior High		X
Language Arts				
Theo Rowland	Crawford Central	Meadville Sr. High		X
Carol Hall	Northwestern	Senior High		X
P.J. Campbell	Penncrest	Cambridge Springs Sr. High		X
Keith Lane	Wattsburg	Seneca Sr. High		X
Katherine Kenney	Northwestern	Senior High	X	X
Bill Yahner	Union City	Senior High		X
DaVee Hays	Crawford Central	Meadville Sr. High		X
Dan Scannell	Corry	Corry Sr. High	X	
Math				
Donna Rodgers	Conneaut	Conneaut Lake		X
Marilyn Wintrode	Girard	Senior High		X
Darlene Charcalla	Titusville	Senior High		X
Frank Barthel	General McLane	Senior High		X
Pat Styborski	Union City	Senior High		X
Linda Anderson	Fairview	Senior High	X	X
Jack McIntyre	Union City	Senior High	X	X
Tom Fortin	Union City	Senior High	X	X
Science				
Don Lindenmoyer	Penncrest	Cambridge Springs Sr. High		X
Ed Payne	Girard	Senior High	X	X
Bill Schubert	Girard	Senior High		X
Barry Bishoff	Fairview	Senior High	X	

Name	District	Building	Summer* 1975	Summer* 1976
Special Education				
Paula Terejko	Crawford Central	Meadville Sr. High		X

* Summer, 1975 - July, 1975 - August, 1975
(25 days)

Summer, 1976 - June 14, 1976 - June 30, 1976
(13 days, six hours per day)

CAREER EDUCATION CURRICULUM RESOURCE UNITS
July 1, 1975 - June 30, 1976

Revised Curriculum Resource Units:

1. Basic Operations (Senior High)
2. Household Science (Senior High)
3. Talk (Senior High)
4. The American Election System (Senior High)

Developed Curriculum Resource Units:

1. Health Occupations (Elementary)
2. Communication Occupations (Junior High)

Initial revision of the four senior high units began during the summer of 1975 (July 7, 1975 - August 15, 1975). These units were completed during a thirteen day period in June, 1976 (June 14, 1976 - June 30, 1976).

The development of the elementary and junior high units began on March 4, 1976 and continued through June 10, 1976. The writing sessions met one night per week for a three hour period each night. These two units were completed during a thirteen day period in June, 1976 (June 14, 1976 - June 30, 1976).

Appendix N

FORM - I

ELEMENTARY TEACHER'S REQUEST FORM

Teacher's Name ______________________ Unit Title ______________________

School ______________________ Request Date ______________________

Phone No. ______________________ Subject Area ______________________

Class Use Date ______________________

GENERAL CLASS OBJECTIVES

OBJECTIVES

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

PROFESSIONAL DECISION-MAKING VARIABLES

(CIRCLE the variable number applicable to your class or classes)

INSTRUCTIONAL LEVEL AND GOALS

1. K -- Immediate Environment (Home-School-Community). -- What is Work?
2. 1 -- Family. -- What are the occupations?
3. 2 -- Community. -- Who works in these occupations?
4. 3 -- Multi-Community. -- What is the life-style?
5. 4 -- State. -- Whom do people work with?
6. 5 -- National. -- Where are these jobs?
7. 6 -- International. -- How do they accomplish their jobs?

STUDY AREA

(CIRCLE any or all study area variables)

18. Reading

27. Math
28. Science
29. Language Arts
30. Social Studies
31. Fine Arts (Art and Music)

FORM I

IMS # A-IX

ELEMENTARY STUDENT REQUEST FORM

Student's Name ______________________ Unit Title ______________________

School ______________________ Teacher's Name ______________________

Phone No. ______________________ Subject Area ______________________

Request Date ______________________

OBJECTIVES

_____ _____ _____ _____

LEARNER VARIABLES

NSTRUCTIONAL LEVEL AND GOALS -- Circle One

1. K -- Immediate Environment (Home-School-Community). -- What is Work?
. 1 -- Family -- What are the occupations?
3. 2 -- Community -- Who works in these occupations?
3 -- Multi-Community -- What is the life-style?
4 -- State -- Whom do people work with?
. 5 -- National -- Where are these jobs?
6 -- International -- How do they accomplish their jobs?

ENERAL INTERESTS -- Circle As Many As Applicable

. Animals
Clubs
Entertainment
. Hobbies
Outdoor Life
13. Painting/Drawing/Coloring
14. Play
15. Sports
16. Stories
17. Travel

TO BE COMPLETED BY THE TEACHER ONLY

UDY AREA -- Circle Any or All Study Area Variables

Reading (Circle One Reading Level)

19. Readiness
20. Primer
21. 1.0
22. 2.0
23. 3.0
24. 4.0
25. 5.0
26. 6.0+

. Math

Science

Language Arts

. Social Studies

Fine Arts (Art and Music)

HIEVEMENT (Circle One -- Applicable to all study areas EXCEPT Reading)

Low Achiever

Average Achiever

. High Achiever

FORM - II

ELEMENTARY TEACHER'S REQUEST FORM

TEACHER'S NAME ______________	UNIT TITLE ______________
SCHOOL ______________	REQUEST DATE ______________
PHONE NO. ______________	SUBJECT AREA ______________
	CLASS USE DATE ______________

GENERAL CLASS OBJECTIVES

OBJECTIVES

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

PROFESSIONAL DECISION-MAKING VARIABLES

GRADE LEVEL

1. K
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6
8. Above

SCHOOL DISTRICT

99. Conneaut
100. Corry
101. Crawford Central
102. PENNCREST
103. Titusville

INSTRUCTIONAL GOALS (See Table of Contents VIII)

104. K - What is Work?
105. 1 - What are the occupations?
106. 2 - Who works in the occupations?
107. 3 - What is the life-style?
108. 4 - Whom do people work with?
109. 5 - Where are these jobs?
110. 6 - How do workers accomplish their jobs?

STUDY AREA

111. Art
112. Home Economics
113. Industrial Arts
114. Language
115. Language Arts
116. Mathematics
117. Music
118. Science
119. Social Studies
120. Reading
121. Interdisciplinary (Self-Contained Classroom)
122. Special Education
123. Adaptive and Regular Physical Education
124. Health

SUGGESTED APPROACH

125. Introductory Activity
126. Developmental Activity
127. Culminating Activity

ACTIVITIES

(Cognitive)

128. Knowledge
129. Comprehension
130. Application
131. Analysis
132. Synthesis
133. Evaluation

(Affective)

134. Receiving
135. Responding
136. Valuing
137. Organization
138. Characterization by a Value

(Psychomotor)

139. Duration
140. Frequency
141. Complexity

INSTRUCTIONAL GROUPING

142. Individual Activity
143. Small Group Activity
144. Large Group Activity

INSTRUCTIONAL ACTIVITY

(See Appendix III for definitions)

145. Construction
146. Creation
147. Demonstration
148. Design
149. Discussion
150. Dramatization
151. Research/Investigation
152. Field Trip
153. Game
154. Oral Language Development
155. Collection
156. Interview
157. Experiment
158. Listening
159. List
160. Physical/Tactile/Kinesthetic
161. Problem Solving
162. Reading
163. Singing
164. Speech
165. Observation
166. Writing
167. Visit

RESOURCES

168. Art Materials
169. Felt Boards
170. Books
171. Bulletin Board Kits
172. Charts
173. Films
174. Film Strips/Film Loops
175. Puppets
176. Models
177. Instructional Toys
178. Games
179. Magazines/Newspapers
180. Maps
181. Pamphlets
182. Programmed Materials
183. Records
184. Community Resource Places
185. Slides/Photographs
186. Tapes
187. Transparencies
188. Vertical File Materials
189. Resource Persons
190. Video Tapes
191. Paraphernalia
192. Microfilm/Microfiche

EVALUATION DEVICES

(See Appendix IV for definitions)

193. Standardized Test
194. Written Examination
195. Written Report
196. Checklist
197. Rating Scale
198. Selective Observation
199. Log/Diary
200. Oral Examination
201. Oral Report
202. Creation and/or Construction

REINFORCEMENT ACTIVITIES

203. Primary
204. Intermediate

FORM II

ELEMENTARY STUDENT REQUEST FORM

Student's Name ____________________

School ____________________

Phone No. ____________________

Unit Title ____________________

Teacher's Name ____________________

Subject Area ____________________

Request Date ____________________

OBJECTIVES

_____ _____ _____ _____

LEARNER VARIABLES

GRADE LEVEL

1. K
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6
8. Above

GENERAL INTERESTS (See Appendix VI for definitions)

9. Airplanes
10. Bikes
11. Camping
12. Cars/Trucks
13. Clubs
14. Colors
15. Construction (making things)
16. Dancing
17. Dramatics
18. Drawing
19. Drugs/Narcotics
20. Earth
21. Ecology
22. Electricity
23. Entertainment
24. Fables/Fairy Tales
25. Family
26. Famous people/Places
27. Farming/Gardening
28. Fashions/Grooming
29. Food/Cooking
30. Friends
31. Games/Puzzles
32. Geography
33. History
34. Hobbies
35. Horses
36. Hunting/Fishing/Trapping
37. Language
38. Magic
39. Mathematics
40. Models
41. Money
42. Music
43. Mysteries/Adventures
44. Needlecraft
45. Neighborhood
46. Painting
47. Pets
48. Photography
49. Play
50. Politics
51. Pre-Historic Animals
52. Racing
53. Reading
54. Religion
55. School
56. Science
57. Scouting/4-H
58. Social Problems
59. Space
60. Sports
61. Stars/Planets
62. Television/Radio
63. Toys
64. Travel
65. Wildlife
66. Writing

TO BE COMPLETED BY TEACHERS ONLY

ACHIEVEMENT

67. Low Achiever
68. Average Achiever
69. High Achiever

READING LEVEL

70. Reading Readiness
71. Primer
72. 1.0
73. 2.0
74. 3.0
75. 4.0
76. 5.0
77. 6.0
78. 7.0
79. 8.0
80. 9.0+

MATH PLACEMENT (See Appendix VII)

81. Readiness
82. Has not mastered 75% of skills on checklist in manual.
83. Mastery of 75% (or above) of skills on checklist in manual.
84. Mastery of all skills on checklist in manual and requires advanced skills.

HANDICAPS (See Appendix VIII for definitions)

85. Partially Sighted
86. Hard of Hearing
87. Fine Motor Disability
88. Short Term Impairment
89. Long Term Impairment
90. Educable Mentally Retarded
91. Speech Impaired
92. Visually Impaired
93. Hearing Impaired
94. Crippled and Health Impaired
95. Emotionally Disturbed
96. Socially Maladjusted
97. Remedial Reader
98. Learning Disability

SCHOOL DISTRICT

99. Conneaut
100. Corry
101. Crawford Central
102. PENNCREST
103. Titusville

INSTRUCTIONAL GOALS (See Table of Contents --VIII)

104. K - What is work?
105. 1 - What are the occupations?
106. 2 - Who works in the occupations?
107. 3 - What is the life-style?
108. 4 - Whom do people work with?
109. 5 - Where are these jobs?
110. 6 - How do workers accomplish their jobs jobs ?

REINFORCEMENT ACTIVITIES

203. Primary
204. Intermediate

FORM I

JUNIOR HIGH TEACHER REQUEST FORM

Teacher's Name ______________________ Unit Title ______________________

School ______________________ Request Date ______________________

Phone No. ______________________ Subject Area ______________________

Request Date ______________________

OBJECTIVES

______ ______ ______ ______ ______

______ ______ ______ ______ ______

PROFESSIONAL DECISION MAKING VARIABLES

INSTRUCTIONAL GOALS (Grade Level must match Grade Level of the Objective's chosen)

1. 7 -- Exploration of a variety of occupational relationships (People, Data, Things) and occupational levels.

2. 8 -- Exploration of one or two occupational relationships (People, Data, Things) and occupational levels.

3. 9 -- Exploration of one occupational relationships (People, Data, Things) and one occupational level.

STUDY AREA (Circle study area(s) applicable to your class)

4. Math
5. Social Studies
6. Science
7. Language Arts
8. Industrial Arts

FORM I

JUNIOR HIGH STUDENT REQUEST FORM

Student's Name	______________________	Unit Title	________________
School	______________________	Teacher's Name	________________
Phone No.	______________________	Subject Area	________________
		Request Date	________________

OBJECTIVES

______ ______ ______ ______

LEARNER VARIABLES

INSTRUCTIONAL GOALS (Grade Level must match Grade Level of the Objectives chosen)

1. 7 -- Exploration of a variety of occupational relationships (People, Data, Things) and occupational levels.

2. 8 -- Exploration of one or two occupational relationships (People, Data, Things) and occupational levels.

3. 9 -- Exploration of one occupational relationships (People, Data, Things) and one occupational level.

STUDY AREA

4. Math

5. Social Studies

6. Science

7. Language Arts

8. Industrial Arts

OCCUPATIONAL LEVELS (Only Applicable to Grades 8 and 9)

11. Management (College Prep Training)

12. Skilled (Post-Secondary Training)

13. Semi-Skilled (Vocational-Technical Training)

14. Non-Skilled (Immediate Employment)

FORM II

JUNIOR HIGH

Teacher's Request Form

Teacher's Name ______________________ Unit Title ______________________

School ______________________ Request Date ______________________

Phone No. ______________________ Subject Area ______________________

GENERAL CLASS OBJECTIVES

OBJECTIVES

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

PROFESSIONAL DECISION MAKING VARIABLES

GRADE LEVEL

1. 7
2. 8
3. 9

STUDY AREA

86. Agriculture
87. Art
88. Commercial
89. Consumer/Homemaking
90. Industrial Arts
91. Language
92. Language Arts
93. Mathematics
94. Music
95. Science
96. Social Studies
97. Vocational/Technical
98. Interdisciplinary - Sp. Education
99. Physical Ed./Adaptive Phys. Ed.
100. Health

SCHOOL DISTRICT

101. Conneaut
102. Corry
103. Crawford Central
104. PENNCREST
105. Titusville

SUGGESTED APPROACH

106. Introductory Activity
107. Developmental Activity
108. Culminating Activity

ACTIVITIES

(Cognitive)

109. Knowledge
110. Comprehension
111. Application
112. Analysis
113. Synthesis
114. Evaluation

(Affective)

115. Receiving
116. Responding
117. Valuing
118. Organization
119. Characterization by a Value

Activities Continued.......

(Psychomotor)

120. Duration
121. Frequency
122. Complexity

INSTRUCTIONAL GROUPING

123. Individual Activities
124. Small Group Activity
125. Large Group Activity

INSTRUCTIONAL ACTIVITY (See Appendix III for definitions)

126. Constructing
127. Creating
128. Demonstrations
129. Design
130. Discussions
131. Dramatization
132. Drill Practice
133. Field Trips
134. Game Playing
135. Interviewing
136. Laboratory
137. Listening
138. Listing
139. Physical/Tactile
140. Problem Solving
141. Reading
142. Speaking
143. Viewing
144. Writing

RESOURCES

145. Art Materials
146. Micro-film/Micro-finche
147. Books
148. Bulletin Board Kits
149. Charts
150. Films
151. Film Strips/Film Loops
152. Games
153. Magazines
154. Maps
155. Pamphlets
156. Programmed Material
157. Records
158. Resource People
159. Resource Places
160. Slides
161. Tapes
162. Transparencies
163. Vertical File Materials
164. Video-Tapes
165. Paraphernalia

EVALUATION DEVICES (See Appendix IV for definitions)

166. Standardized Test
167. Teacher-made Test
168. Essay
169. Self-Evaluation
170. Peer Evaluation
171. Teacher Evaluation
172. Checklist
173. Rating Scale
174. Selective Observation
175. Log/Diary
176. Oral Examination
177. Oral Report
178. Creation and/or Construction

FORM II

JUNIOR HIGH STUDENT REQUEST FORM

Student's Name________________________ Unit Title________________________

School________________________ Teacher's Name________________________

Phone No.________________________ Subject Area________________________

OBJECTIVES

_____ _____ _____ _____

LEARNER VARIABLES

(Only CIRCLE those items which you think are important)

GRADE LEVEL

1. 7
2. 8
3. 9

GENERAL INTEREST AREAS (See Appendix VI for definitions)

4. Aeronautics
5. Airplanes
6. Anthropology
7. Art
8. Astronomy
9. Communications
10. Community
11. Crime
12. Drugs/Narcotics
13. Earth
14. Ecology
15. Economics
16. Famous People
17. Folklore/Myth
18. Food/Cooking
19. Games
20. Geography
21. Heavy Equipment
22. History
23. Hobbies
24. Language
25. Mathematics
26. Medicine/Health
27. Models
28. Money
29. Movies
30. Music
31. Occult
32. Pets
33. Philosophy
34. Photography
35. Politics
36. Psychology
37. Radio/TV
38. Reading
39. Recreation
40. Religion
41. Science
42. Sewing
43. Social Problems
44. Social Studies
45. Space
46. Sports
47. Travel
48. Vehicles
49. Writing, fiction, non-fiction

CAREER EXPLORATION

I would like to explore Careers which would entitle me to........

50. Secure immediate employment
51. Enter an apprenticeship program
52. Pursue skill in training in a technical school
53. Pursue advanced formal education

TO BE COMPLETED BY TEACHERS

ACHIEVEMENT

54. Low Achiever
55. Average Achiever
56. High Achiever

READING LEVEL

57. 0-5
58. 6-8
59. 9+

MATH LEVEL

60. 0-5
61. 6-8
62. 9+

PRE-VOCATIONAL APTITUDES (See Appendix VII for Definitions)

VERBAL REASONING

63. Adequate
64. Inadequate

NUMERICAL ABILITY

65. Adequate
66. Inadequate

SPACE RELATIONS

67. Adequate
68. Inadequate

ABSTRACT REASONING

69. Adequate
70. Inadequate

CLERICAL SP. & ACC.

71. Adequate
72. Inadequate

MECHANICAL REASONING

73. Adequate
74. Inadequate

PHYSICAL HANDICAPS (See Appendix VIII for Definitions)

75. Partially Sighted
76. Hard of Hearing
77. Fine Motor Disability
78. Short Term Limb Impairment
79. Long Term Limb Impairment
80. Educable Mentally Retarded
81. Speech Impaired
82. Visually Impaired
83. Hearing Impaired
84. Crippled and Health Impaired
85. Emotionally Disturbed and Socially Malajusted

STUDY AREA

86. Agriculture
87. Art
88. Commercial
89. Consumer/Homemaking
90. Industrial Arts
91. Language
92. Language Arts
93. Mathematics
94. Music
95. Science
96. Social Studies
97. Vocational/Technical
98. Interdisciplinary -- Special Education
99. Physical Ed./Adaptive Physical Ed.
100. Health

SCHOOL DISTRICT

101. Conneaut
102. Corry
103. Crawford Central
104. PENNCREST
105. Titusville

FORM I

Senior High

TEACHER'S REQUEST FORM

Teacher's Name______________________________ Subject Area______________________

School______________________________________ Unit Title________________________

Phone No.___________________________________ Request Date______________________

GENERAL CLASS OBJECTIVES

OBJECTIVES

______ ______ ______ ______ ______

______ ______ ______ ______ ______

PROFESSIONAL DECISION-MAKING VARIABLES

INSTRUCTIONAL LEVELS -- (Circle the applicable level or levels of the student enrollment in your class)

40. Ten -- Fundamental
41. Eleven -- Application
42. Twelve -- Refinement

INSTRUCTIONAL ACTIVITY -- (Multiple Selection)

43. Teacher Demonstrations
44. Problem Solving
45. Field Trips
46. Listening
47. Constructing
48. Classroom Visitor
49. Lecture
50. Student Led Discussion
51. Viewing
52. Creating
53. Interview
54. Dramatization
55. Reading
56. Writing
57. Speaking
58. Laboratory
59. Physical/Tactile
60. Teacher Led Discussion
61. Action/Exploratory
62. Listing
63. Games

FORM I

Senior High

Student's Request Form

Student's Name ____________________

School ____________________

hone No. ____________________

Subject Area ____________________

Unit Title ____________________

Teacher's Name ____________________

Request Date ____________________

OBJECTIVES

____ ____ ____ ____

LEARNER VARIABLES

(There should be a logical correlation between the Career Goal, the Career Cluster and the Study Area selected by the student)

AREER GOAL -- (Circle One)

At the completion of high school, I plan to . . . .

1. Secure immediate employment
2. Enter an apprenticeship program or Pursue skill in training in a technical school
3. Pursue advanced formal education

CAREER CLUSTERS -- (Circle One)

4. Industry
   - Ag-Bus. Natural Resources
   - Construction
   - Manufacturing
   - Marine Science

5. Commerce
   - Business and Office
   - Communications
   - Marketing and Distribution
   - Transportation

6. Services
   - Consumer-Homemaking
   - Environmental
   - Fine Arts and Humanities
   - Health
   - Hospitality and Recreation
   - Personal Service
   - Public Service

Therefore, I Am In This Study Area . . . . (Circle One)

7. College Prep
8. General
9. Commercial
0. Consumer/Homemaking
11. Agriculture
12. Agriculture -- Business
3. Automotive Mechanics
14. Carpentry
15. Commercial Art
6. Cosmetology
7. Data Processing
18. Distributive Education
19. Drafting and Design
20. Industrial Electronics
21. Electronics Technology
22. Food preparation
23. Machine Shop
24. Tool and Die Technology
25. Welding
26. Air Conditioning
27. Appliance Repair
28. Automotive Body
29. Masonry
30. Plumbing/Pipe Fitting
31. Building Maintenance Trades
32. Graphics
33. Sheet Metal
34. Mill/Cabinet Maker
35. Health Services
36. Hotel/Motel Management

READING ACHIEVEMENT -- (Circle One)

37. Below Average
38. Average
39. Above Average

INSTRUCTIONAL LEVELS -- (Circle One)

40. Ten -- Fundamental
41. Eleven -- Application
42. Twelve -- Refinement

FORM II

Senior High

Teacher's Request Form

Teacher's Name ______________________

Subject Area ______________________

School ______________________

Unit Title ______________________

Phone No. ______________________

Request Date ______________________

GENERAL CLASS OBJECTIVES

OBJECTIVES

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

PROFESSIONAL DECISION-MAKING VARIABLES

GRADE LEVELS

26. 10
27. 11
28. 12

SCHOOL DISTRICTS

104. Conneaut
105. Corry
06. Crawford Central
107. PENNCREST
108. Titusville

SUGGESTED APPROACH

09. Introductory Activity
110. Developmental Activity
111. Culminating Activity

CTIVITIES

(Cognitive)

12. Knowledge
113. Comprehension
14. Application
15. Analysis
116. Synthesis
17. Evaluation

(Affective)

118. Receiving
119. Responding
120. Valuing
121. Organization
122. Characterization by a Value

(Psychomotor)

123. Observing
124. Duration
125. Frequency
126. Complexity

ISTRUCTIONAL GROUPING

27. Student Activities (Individual)
28. Small Group Activity
129. Large Group Activity

INSTRUCTIONAL ACTIVITY (See Appendix III for definitions)

30. Teacher Demonstrations
131. Problem Solving
32. Field Trips
33. Listening and Viewing
134. Constructing/Creating
135. Drill Practice
36. Lecture
37. Student Led Discussion
138. Dramatization
139. Reading
140. Writing
141. Speaking
142. Laboratory
143. Physical/Tactile
144. Teacher Led Discussion
145. Action/Exploratory

ESOURCES

46. Books
47. Films
148. Resource People
149. Charts
Magazines
51. Opaque Projector Material
152. Tapes
53. Slides
154. Vertical File Materials/Pamph
155. Film Strips/Loops
156. Resource Places
157. Maps
158. Bulletin Board Design Materia
159. Overhead Projector
160. Programmed Materials
161. Records
162. Art Materials

VALUATION DEVICES (See Appendix IV for definitions)

163. Standardized Test
164. Teacher-Made Test
65. Checklist
66. Self-Evaluation
167. Selective Observation
68. Peer Evaluation
169. Essay
170. Rating Scale
171. Log/Diary
172. Creation and/or Construction
173. Oral Examination
174. Oral Report

READING ACHIEVEMENT -- (Circle One)

37. Below Average
38. Average
39. Above Average

INSTRUCTIONAL LEVELS -- (Circle One)

40. Ten -- Fundamental
41. Eleven -- Application
42. Twelve -- Refinement

Form II

SENIOR HIGH STUDENT REQUEST FORM

STUDENT'S NAME ____________________

SCHOOL ____________________

PHONE NO. ____________________

SUBJECT AREA ____________________

UNIT TITLE ____________________

TEACHER'S NAME ____________________

REQUEST DATE ____________________

OBJECTIVES

_____ _____ _____ _____

LEARNER VARIABLES

(Only CIRCLE those items which you think are important)

CAREER GOAL

At the completion of high school, I plan to ....

1. Secure immediate employment
2. Enter an apprenticeship program
3. Pursue skill in training in a technical school
4. Pursue advanced formal education

CAREER CLUSTERS

5. Agri-Business and Natural Resources
6. Business and Office
7. Communications and Media
8. Construction
9. Consumer and Homemaking
10. Environmental
11. Fine Arts and Humanities
12. Health
13. Hospitality and Recreation
14. Manufacturing
15. Marine Science
16. Marketing and Distribution
17. Personal Service
18. Public Service
19. Transportation

Therefore, I Am In This Study Area ....

20. College Prep
21. General
22. Commercial
23. Consumer/Homemaking
24. Agriculture
25. Vocational-Technical Program

GRADE LEVELS

26. 10
27. 11
28. 12

GENERAL INTERESTS

29. Psychology
30. Philosophy/Logic
31. Religion
32. Astrology
33. Pets
34. Automobiles
35. Music
36. Hobbies
37. Art
38. Sports
39. Mathematics
40. Modern Language
41. Social Studies
42. Language Arts
43. Science
44. Travel
45. Politics
46. Writing, fiction, non-fiction
47. Reading

SPECIFIC VOCATIONAL-TECHNICAL INTERESTS

48. Agriculture -- Business
49. Automotive Mechanics
50. Carpentry
51. Commercial Art
52. Cosmetology
53. Data Processing
54. Distributive Education
55. Drafting and Design
56. Industrial Electronics
57. Electronics Technology
58. Food Preparation
59. Machine Shop
60. Tool and Die Technology
61. Welding
62. Air Conditioning
63. Appliance Repair
64. Automotive Body
65. Masonry
66. Plumbing/Pipe Fitting
67. Building Maintenance Trades
68. Graphics
69. Sheet Metal
70. Mill/Cabinet Maker
71. Health Services
72. Hotel/Motel Management

TO BE COMPLETED BY TEACHERS ONLY

Form II

73. Partially Sighted
74. Hard of Hearing
75. Fine Motor Disability
76. Short Term Limb Impairment
77. Long Term Limb Impairment
78. Educable Mentally Retarded
79. Speech Impaired
80. Visually Impaired.
81. Hearing Impaired
82. Crippled and Health Impaired
83. Emotionally Disturbed and Socially Maladjusted

READING ACHIEVEMENT

84. Below Average
85. Average
86. Above Average

MENTAL MEASUREMENT

87. Below Average
88. Average
89. Above Average

OCCUPATIONAL APTITUDES

VERBAL REASONING

90. Adequate
91. Inadequate

NUMERICAL ABILITY

92 Adequate
93. Inadequate

SPACE RELATIONS

94. Adequate
95. Inadequate

ABSTRACT REASONING

96. Adequate
97. Inadequate

CLERICAL SPEED AND ACCURACY

98. Adequate
99. Inadequate

MECHANICAL REASONING

100. Adequate
101. Inadequate

LANGUAGE USAGE

102. Adequate
103. Inadequate

SCHOOL DISTRICT

104. Conneaut
105. Corry
106. Crawford Central
107. PENNCREST
108. Titusville

APPENDIX X

The Northwest Tri-County Intermediate Unit has been awarded one of 81 national demonstration models by USOE's Career Education Office in accordance with section 406 of the Education Amendments of 1974.

The project objectives will encompass the following definition:

> *Career Education is a comprehensive educational concept which begins in the very early years and continues well into the retirement years. It is the total of all experiences through which one learns about and prepares to engage in work as part of a way of living.*
>
> *Career Education is for ALL PERSONS.......*

Although Career Education is for ALL persons, the division of State and Federal Liaison Services of the Northwest Tri-County Intermediate Unit will focus primarily on demonstrating incremental improvements K-12 through a Career Education exemplary model.

In the Elementary School, (K-6), each student is helped to develop a broad AWARENESS of the world of work.

Computer Based Curriculum Resource Units that have been developed for elementary teachers (K-6) to integrate into their present curriculum include:

Health
Communication
Manufacturing
Construction
Public Service
Transportation
Marine Science
Personal Service
Business & Office
Consumer Homemaking
Hospitality & Recreation
Agri-Business & Natural Resources

In the Junior High, (7-9), each student is provided with opportunities to EXPLORE in considerable depth those type of career areas which they feel are of most interest to them.

Computer Based Curriculum Resource Units that have been developed for Junior High (7-9) teachers to integrate into their present curriculum include:

Communications
Business & Office
Agri-Business & Natural Resources
Transportation
Consumer Homemaking

In the Senior High School, (10-12), each student should be in the position to make a rational choice of an appropriate career goal, and begin PREPARATION procedures toward achieving that goal.

Computer Based Curriculum Resource Units that have been developed for Senior High (10-12) teachers to integrate into their present curriculum include:

Talk
Unions
Light
Credit
Inquiry
Banking
Weather
Insurance
Prejudice
Genetics
Why Math?
Soil Science
Journalism
Advertising
Composition
Responsibility
Metric System
Measurement
Fresh Water
Basic Operations
American Money
Basic Electricity
Force & Motion
American City
Decision Making
Origins of Man

Glacial Geology
State Government
Household Science
Why Language Arts?
U.S. China Relations
U.S. Crime & Justice
Ratio and Proportion
Public Defense System
Job Trends in N. W. PA.
American Election Process

Computer Based Curriculum Resource Units consist of objectives, suggeste instructional activities, content items, which are statements of fact or stimulating thoughts, instructional resources both physical and human, plus criterion referenced evaluation devices about the specific activity.

It is hoped that through the developmental concepts of the Career Education model a child's awareness will develop from a narrow view to a broad view and then be refined back to the narrow view for a career choice.

For ordering and receiving materials, fill out the standard I.M.S. order form and follow your school's existing I.M.S. delivery system.

David G. Minnis
Project Director

FOR FURTHER INFORMATION CONTACT:

Mr. Stephen P. Barrett
Project Coordinator

or

Ms. Barbara Wolchik
Project Coordinator

or

Ms. Marge Clark
Career Education Resource Center

NORTHWEST TRI-COUNTY INTERMEDIATE UNIT
State and Federal Liaison Services
252 Waterford Street
Edinboro, Pa.
(814) 734-5610

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Harnack, Robert S., Computer-Based Curriculum Planning (Sec. Rev.), Center for Curriculum Planning, State University of New York at Buffalo, Buffalo, New York.

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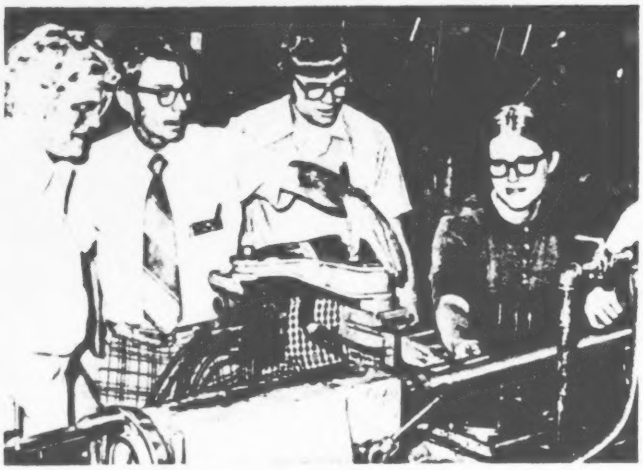
APPENDIX XI

G.E. SHADOW PROJECT HELPS GUIDANCE COUNSELORS



Left to rigth: Bob Trombacco, Strong Vincent; Jim Lewis, G.E. Apprentice Training Room; and two G.E. Apprentices.

Area counselors recently participated in a three-day "Shadow" program held at the General Electric Company, Erie plant. The objectives of the program were to help guidance counselors become familiar with the nature of a heavy manufacturing industrial work environment, and to learn about training programs and career opportunities. Each counselor was assigned to a series of G.E. employees in the five major areas and stayed unobstrusively near the employee for several hours. Through dialogue and observation, counselors acquired first-hand information regarding the industrial environment, its practices, policies, and problems. This cooperative venture between education and industry will result in more realistic counseling with students. Many thanks to the General Electric Company for sponsoring this program which was co-designed by Mr. Robert Heltman, Manager of Professional Relations, G.E. (who is a member of the Pennsylvania State Advisory Council for Vocational Education) and Mrs. Marjorie McLean, Counselor at Iroquois High School.

Evaluation of the "Shadow" program by both counselors and G.E. personnel revealed an enthusiastic appreciation for this opportunity. Mutual concerns regarding career counseling were discussed, importance of high school preparation was stressed, and non-traditional roles for women were observed. The utilization of the General Electric Company as a community resource has assisted counselors in bridging the gap between the educational world and the world of work.

LOCAL SCHOOL DISTRICTS MAKE COMMITMENT TO CAREER EDUCATION

With Career Education becoming a national priority, individual school districts need to develop policies to meet the goals and recommendations as established by the U.S. Office of Education.

Four school districts in Erie County have recognized this priority and included as part of their support to the Career Education concept, funds to develop a local program. These school districts are Girard, Northwestern, Millcreek and Fairview. Ms. Barbara Wolchik, Project Coordinator, is assisting these districts during their initial stages of integrating Career Education concepts into the existing curriculum.

A NATIONAL GRANT FOR CAREER EDUCATION

On July 1, 1975 the Northwest Tri-County Intermediate Unit was awarded one of 81 national demonstration projects recently funded by the USOE's Career Education Office in accordance with Section 406 of the Education Amendments.

The project, under the direction of David G. Minnis, State and Federal Liaison Services, will focus primarily on demonstrating incremental improvements, K-12, through a career education exemplary model.

As the only grant recipient in the State of Pennsylvania, the project objectives will encompass the USOE policy definition of Career Education:

> "Career Education is the totality of all experiences through which one learns about and prepares to engage in work as part of a way of living."
>
> —Hoyt

Computer Based Curriculum Resource Units have been developed to integrate the goals of Career Education with Academic Achievement at the Elementary level, Junior High level and Senior High level.

In the Elementary School, (K-6), each student is helped to develop a broad **AWARENESS** of the world of work.

The Junior High student, (7-9), is provided with opportunities to **EXPLORE** in considerable depth those career areas which they feel are of most interest to them.

In the Senior High School, (10-12), each student should be in the position to make a rational choice of an appropriate career goal, and begin **PREPARATION** procedures toward achieving that goal.

The Computer Based Curriculum Resource Units consist of objectives, suggested instructional activities, content items, which are statements of fact or stimulating thoughts, instructional resources both physical and human, plus criterion referenced evaluation devices about the specific activity.

All materials available are listed in the new I.M.S. catalogue and may be ordered by using the regular I.M.S. order form and delivery system.

Any person wishing more in-depth information concerning Career Education should call (814) 734-5610 or write:

Northwest Tri-County Intermediate Unit
State and Federal Liaison Services
252 Waterford Street
Edinboro, Pennsylvania 16412

FROM THE EDITOR:

Hello! My name is Linda Siemon and I am the new editor of "Insights." I have come to Pennsylvania and the Intermediate Unit from Louisville, Kentucky to fill the position of Curriculum Coordinator that was created when Jan Williams moved to her new position as Principal of North End Elementary in the Crawford Central School District. Good luck to Jan in her new endeavor and I hope that I can continue the award winning format that has been established.

"INSIGHTS" RECEIVES THIRD P.S.B.A. AWARD

We are pleased to announce that "Insights," the Intermediate Unit #5 newsletter has again received an "Award of Excellence" presented by the Pennsylvania School Boards Association this October. We sincerely hope that the standard set by this publication in the past can be continued. If there are any suggestions or newsworthy information, please contact us so that it will receive proper coverage.